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ENVIRONMENTAL ISSUES AT DEPARTMENT OF ENERGY NUCLEAR FACILITIES

HEARING

BEFORE THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

MARCH 17, 1987

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ENVIRONMENTAL ISSUES AT DEPARTMENT OF ENERGY NUCLEAR FACILITIES

TUESDAY, MARCH 17, 1987

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 9:35 a.m., in room SD-342, Dirksen Senate Office Building, Hon. John Glenn (Chairman of the Committee) presiding.

Present: Senators Glenn, Roth, Cohen, Mitchell, and Sasser.

Also present: Senator Adams.

OPENING STATEMENT OF CHAIRMAN GLENN

Chairman GLENN. Today, we continue with the second of our hearings on environment, safety, and health conditions at the Department of Energy's nuclear weapons production facilities.

Last Thursday's hearing focused on the safety of the reactors that the Department of Energy uses to produce plutonium and tritium for nuclear weapons.

We heard a status report from the General Accounting Office on the ongoing investigation that they are conducting for me on the current state of safety at these DOE facilities. Among other things, we heard disturbing testimony from the GAO that four Government nuclear reactors that produced plutonium for bombs had been operating at an unsafe power level for over six years, and that DOE procedures for determining whether cracks exist in reactor vessels are significantly less stringent than those required for NRC licensees.

Today we continue our examination of DOE defense facilities, focusing on environmental issues. My own personal involvement in these issues at DOE facilities goes back to the 1970's, when health and safety problems at the Portsmouth nuclear enrichment plant in Piketon, Ohio, came to my attention. It took the intervention of my office to get DOE to allow NIOSH access to worker health records—something which NIOSH is entitled to have under the OSHA Act for privately owned facilities.

In 1984 I received reports about radioactive air emissions and contamination at the Feed Materials Production Center in Fernald, Ohio. I visited Fernald, and I must tell you I was somewhat appalled at the conditions I found there.

I held a hearing in April 1985 in Cincinnati to look into the management and operation of DOE's Fernald, Ohio Feed Materials Production Center. Following that hearing, which revealed the extent of neglect by both DOE and the contractor toward their responsibilities for environmental protection, DOE then agreed to make a number of substantive and organizational improvements at Fernald. These included a change in the contractor from National Lead of Ohio to Westinghouse, and a number of actions that are described in the testimony of Assistant Secretary Mary Walker.

The neglect at Fernald was so shocking that I decided to ask GAO to do a series of studies for me on environment, safety and health conditions throughout the DOE nuclear weapons complex. Let me be very complimentary here this morning to the job that GAO has done with these investigations.

We have had five major reports that they have done, and two of them centered on some of our problems in Ohio. One branched out into environmental issues at the whole DOE nuclear defense complex, and they have been an excellent series of reports.

These reports show that serious environmental problems exist at nearly all the facilities surveyed by the GAO. It is apparent that DOE's self-regulation in the environmental area, as in the reactor safety area, must not be allowed to continue.

I will be introducing legislation in a few days to bring outside, independent oversight over DOE's environment, safety, and health activities.

We need to maintain our nuclear deterrent, but I intend to see to it that our people are not sacrificed in the process through the poisoning of our water, our soil, and our air.

I would like to ask unanimous consent to enter into the record a statement by Congressman Tom Luken.

[A statement by Congressman Luken follows:]

STATEMENT OF HON. THOMAS A. LUKEN

Good morning, Mr. Chairman and members of the committee. I am very pleased to submit this statement for the record. I congratulate you, Mr. Chairman, for covening this important hearing.

As you know, Mr. Chairman, our State of Ohio has unfortunately been the victim of the Department of Energy's renegade approach to environmental protection. For years now, the DOE's level of compliance with our environmental laws has been far short of acceptable. In virtually every sector of our society, in the industrial, commercial, and even the residential sectors, we have witnessed dramatic improvements in environmental protection. For some reason, DOE has placed itself above the law and believes itseslf to be unaccountable to society. I am deeply saddened by the fact that the Attorney General of the United States is a co-conspirator in DOE's efforts to avoid the environmental standards the rest of the country must meet.

I have been working actively for many years to force the DOE to comply with our environmental statutes. Attached to my statement is legislation I have introduced in the House along with my colleagues from the Northwest, Congressmen Wyden, Swift, and Miller and Congressmen Synar and DeFazio which would require the DOE to comply with the statutes that the rest of the country must obey. This legislation would provide the Environmental Protection Agency with needed authority to monitor DOE's compliance with the requirements of the environmental laws. More importantly, the legislation would establish new environmental standards that the DOE would be required to meet.

This legislation has been referred to the Subcommittee on Transportation, Tourism, and Hazardous Materials, of which I am Chairman. I intend to hold early hearings on this bill and to put it on a fast track. I am hopeful that companion legislation will be introduced in the Senate in the near future.

Mr. Chairman, thank you for the opportunity to participate in this hearing. Again, I congratulate you for calling this hearing and for your efforts to safeguard the public from environmental hazards created by the DOE.

Chairman GLENN. Senator Roth, do you have a statement?

OPENING STATEMENT OF SENATOR ROTH

Senator **Roth**. Thank you, Mr. Chairman. Today we will focus on environmental issues surrounding DOE nuclear facilities. As I said at the first hearing, nuclear materials, whether we are discussing nuclear energy or weapons grade plutonium, must always be treated with the utmost care, security, and safety.

The hundreds of nuclear waste sites throughout our Nation serve as constant reminders that we must do something to correct this problem. And while this Committee is solely concerned with Department of Energy facilities, it simply begets the problem if we refuse to acknowledge that environmental issues arise not only from commercially-operated facilities but also from Department of Energy sites. Nuclear waste, while it may not appear as an immediate threat, it is a very, very serious threat nonetheless—in fact, it may be more serious since it slowly and almost quietly destroys parts of our environment.

Today we will hear that serious environmental concerns such as groundwater contamination, soil contamination, hazardous waste storage, and management problems already exist to a very large degree at many of our DOE facilities. In light of these problems, we must act in a quick but informed manner to clean up these sites.

Cleaning up these environmental hazards is not a simple task; it requires much cooperation between the Department, EPA, and between the Department and individual States. This hearing will examine the cooperative efforts that have already been made, and I am interested to see if any improvements can be made in this interaction.

A little more than 6 months ago, the Department began a baseline environmental survey of Department of Energy nuclear facilities. While this survey will help considerably in identifying existing environmental hazards and helping us solve these problems, it is clear that the DOE has already identified many hazardous conditions throughout the country. These problems must not go unsolved and these hearings provide an opportunity to examine the record and move towards safer and cleaner facilities.

Again, I must emphasize that nuclear safety issues, whether they involve commercial operations or Government facilities, are extremely important. We owe it to the public that Government facilities meet the high standards of reactor and environmental safety, and pose no threat to the welfare of the American people.

I look forward to today's testimony.

Mr. Chairman, I regret that I am not going to be able to stay the entire morning; unfortunately, we are having hearings on trade and finance. But I will be watching with great interest what develops in this hearing this morning.

Chairman **Glenn**. Yes, we all have too many hearings we are trying to attend.

We also welcome back a member of the Senate who is not a member of this Committee, but who has a great interest in this matter, Senator Brock Adams from the State of Washington. We will have some people testifying later on from the State of Washington today. We welcome you to our Committee once again, Senator Adams.

Senator ADAMS. Thank you, Mr. Chairman.

Chairman GLENN. Before us today will be witnesses from the General Accounting Office; and from the States of Ohio, Washington, and South Carolina; from the U.S. EPA and from the U.S. Department of Energy.

We have at the witness table Mr. Keith Fultz, Associate Director of the U.S. General Accounting Office.

Mr. Fultz, you have a couple of associates with you; perhaps you could introduce them to us and tell us what their positions are.

TESTIMONY OF KEITH O. FULTZ, ASSOCIATE DIRECTOR, U.S. GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY MS. KRUSLICKY AND MR. FENZEL, EVALUATORS

Mr. FULTZ. On my right is Ms. Kruslicky, who has been an evaluator-in-charge on many of the reviews I will be discussing today; and on my left is Mr. Fenzel, who has also been an evaluator-in-charge on some of the reports I will be discussing this morning.

Chairman GLENN. We welcome them this morning.

Proceed with your statement or summary thereof, whichever you wish.

Mr. FULTZ. I would like to summarize my statement, but would like the entire prepared statement entered into the record.[1]

Chairman GLENN. Without objection, the entire statement will be included as though delivered.

Mr. FULTZ. Thank you.

We are pleased to be here today to discuss our work on environmental issues and problems within the DOE nuclear defense weapons complex.

I would like to stress that our reports have identified problems at individual facilities as well as throughout the entire DOE system.

Two major concerns which we have are that DOE's operations have contaminated groundwater and soil with high levels of radioactive and hazardous substances and that its facilities do not fully comply with environmental laws. In our opinion, DOE has not given sufficient emphasis to environmental protection; thus, it will have to spend billions of dollars to clean up existing contamination.

Frankly, some of DOE's sites may never be cleaned up, and many will require long-term institutional care. To date, DOE has not defined the full scope of its problems, what actions or costs are needed to correct them, or how long it will take to clean up its facilities.

Along these lines, GAO has made two major recommendations. First, we believe DOE needs to provide the Congress with a comprehensive report on its plans, milestones and cost estimates to bring its facilities into full compliance. Second, DOE needs to develop an overall groundwater and soil protection strategy.

Comprehensive information on environmental problems and an overall groundwater and soil strategy will be key components in the overall strategic plan for DOE's nuclear defense complex, which we called for last week.

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[1] See p. 73.

In the interest of time, I would now like to summarize six of our reports. Two of these reports, both done at your request, Mr. Chairman, related to environmental issues at three DOE plants in Ohio. As you recall, DOE considered closing the Fernald facility in the late 1970's; thus, it did not make capital improvements, and the equipment deteriorated. DOE's production goals increased in the 1980's, which put a strain on the plant's resources. In fact, DOE documents which we reviewed stated that Fernald's management emphasized production over environmental concerns. Thus, about 300 pounds of slightly enriched uranium was released into the air.

With regard to the Savannah River complex, which we testified to last week, we issued a report in July 1986 which assessed the radioactive waste management practices of the entire facility at Savannah River. We did not find any offsite contamination. But we did find that DOE operations had extensive onsite groundwater and soil contamination, some of which may never be corrected.

For example, the radioactive contamination in one stream was about 750 times greater than drinking water standards. In addition, leaks from high-level waste storage tanks have contaminated about 30,000 square feet of soil underlying the tanks. Because of the extensive contamination at Savannah River, institutional controls and oversight at that facility may be needed for hundreds of years.

Another major report examined environmental conditions at nine DOE facilities nationwide, and we found that groundwater and soil have been contaminated at virtually all of them. Groundwater at eight facilities had been contaminated with hazardous or radioactive material. Facilities in Colorado, South Carolina, and Tennessee contaminated the groundwater with solvents at levels that are as much as 1,000 times above the proposed drinking water standards. At Mound and Fernald, in Ohio, the contamination has migrated offsite into drinking water supplies.

State officials that we talked to—and I am sure we will be hearing some of their views today—are concerned that the existing contamination may pose a public health threat and that DOE is still discharging radioactive and hazardous material into the environment.

We also found that DOE's operations had contaminated soil at six facilities included in our review. Of the offsite contamination problems, the Y-12 plant in Tennessee may be the most significant. Mercury from that plant's operations have contaminated a streambed and a flood plain. We understand that DOE has a project underway to clean up both the groundwater and soil contamination at a few of these facilities; however, it is still studying the extent, type and movement of the contamination at others.

Our nationwide study found that four of the nine DOE facilities are not in full compliance with the Clean Water Act. And with regard to the Resource Conservation and Recovery Act, we found that none of the nine facilities had received a final permit. Now, as you know, this Act is designed to prevent groundwater contamination, and until the facilities receive permits, they can continue to dispose of waste in a manner that may be contaminating groundwater.

We also conducted a rather extensive review of the Hanford facility waste management practices, and we found that it had discharged liquid waste directly into the soil, even though Federal and State regulators would not allow the private sector to do this without liners or adequate monitoring. In 1985, Hanford disposed over 25 million gallons of contaminated waste to an unlined disposal site without proper groundwater monitoring. Last July, Hanford reduced the level of contamination in the waste discharged and plans further changes, which we understand are to be in place sometime in 1989.

Hanford has also been slow to identify all units that should be regulated under the Resource Conservation and Recovery Act, and it has not identified all potential Superfund sites that may require corrective action. We believe this is significant, because until this is done, Hanford cannot ensure the regulatory agencies that it is managing and disposing of waste in compliance with environmental statutes.

Another report which discussed the DOE-wide problem concerned the issue of transuranic waste, which is discarded tools, rags, paper, containing manmade radioactive elements. Although DOE has a multi-billion-dollar effort underway to put this waste about 2,000 feet underground, it only expects to send about 19 percent of its transuranic waste there. It has made no commitment regarding the permanent disposal of the remaining 81 percent. This waste is currently being stored at six locations throughout the country.

I think it is important to recognize that the cost of dealing with these problems will be substantial; because so many uncertainties exist, the total cost estimates are not known. However, we do believe it will cost literally billions of dollars for DOE to comply with its environmental laws.

To provide the Committee with a perspective of some costs that have been identified, my statement lists some examples, which I would just like to highlight here. Sixty million dollars is needed to bring Fernald, Mound, and the Y-12 plant into compliance with the Clean Water Act. Also, DOE plans to spend about $200 million for getting final Resource Conservation and Recovery Act permits for just nine facilities. Another study conducted at Hanford estimates that alternative disposal methods for low-level waste could cost up to $500 million. And last, DOE estimates that it will cost between $490 million to over $6 billion to dispose of high-level radioactive waste from its single-walled tanks at the Hanford facility.

Now, as you may recall from Mr. Peach's testimony last Thursday, GAO has recommended that DOE prepare an overall strategic plan for its entire nuclear defense complex. Today, I am reiterating the need for two environmental actions that would be an integral part of this overall strategic plan. They are: the need for an overall groundwater and soil protection strategy, and a comprehensive plan to bring DOE facilities into full compliance with environmental laws.

We would hope that this Committee has the opportunity to explore with DOE officials when our recommendations will be implemented. Only then will the Congress and the public have a clear understanding of the environmental risks associated with DOE's nuclear weapons complex.

This concludes the summary, and we will be glad to respond to any questions you or Mr. Adams may have.

Chairman GLENN. Thank you very much, Mr. Fultz. I do have a few questions here, and we may want to submit more questions to you later from other members of the Committee and staff, and we would ask that those be replied to as rapidly as possible, if you could, so they can be included in the record also.

I gather you feel the most important environmental problem right now is groundwater; is that correct—or, let me ask it a different way. What do you think are the most important environmental problems with DOE's nuclear defense complex?

Mr. FULTZ. I would like to mention that we have reviewed about 10 of the facilities within the complex, which numbers about 35 to 40 in total. Based upon those reviews, I think we would agree that one of the most serious problems is groundwater contamination, but we also found soil contamination at six of these facilities; so we would have to say that it also is a rather significant problem.

Chairman GLENN. Was this the most significant accomplishment of the work you have done so far?

Mr. FULTZ. Well, we would like to think that we have heightened the interest of the public and the Congress and DOE about the importance of the issues which we have been asked to review, many done at your request. We also think that the initiation of the new office within DOE in September of 1985 has been a step in the right direction. That is creating the Assistant Secretary for Environmental Safety and Health. We like to also think that DOE has been somewhat responsive to our recommendations. They have agreed, in fact, to virtually all of our recommendations, they have agreed to take action on them. We would like to see them take quicker action, perhaps, than what they have done in the past.

Chairman GLENN. Do you have any estimate out of the work you have done as to what it is going to cost, because every time we get into costs, it all gets very vague. Number one—let me back up a little bit before I get to cost. Do we know how to clean these things up yet? Do we have the technology? Is it just a matter of dollars, or do we even know how to clean them up, to begin with?

Mr. FULTZ. First of all, I would like to say that we do not know the true extent of the problems at any of the DOE facilities. DOE is currently studying that. They have studies underway at several facilities to identify the true extent of the problem. Until these studies are done, I do not think anyone can answer that question, sir, as to the true extent.

It is quite possible because of the degree of contamination that we have seen at some of the facilities—Hanford comes to mind, Savannah River comes to mind—that we have serious problems. Those two facilities literally may have to be maintained for hundreds of years, under an institutionalized control basis.

Chairman GLENN. Well, as I pointed out last week at our hearing, there are two levels of this thing. One is making existing operations safe; and then the other is cleaning up what has gone unattended too long. And granted, we know a lot more about some of these things now than we knew 30 years ago, and so we are taking a new look at them. But many of these facilities are also 30, 40 years old. So you have two things—how to make them safe, and then how to clean up what we now know should have been cleaned up a long time ago. When you start putting dollar figures to that, it gets awesome.

Have you seen any estimate, or have your people even attempted to put an estimate on such a cleanup effort, what it would cost?

Mr. FULTZ. We feel very confident that for the ten facilities which we have reviewed, the methods needed to control and contain contamination at those facilities will be in the billions of dollars. We could speculate from that what the total cost for the entire DOE complex would be, but frankly, sir, I do not think that would be a wise thing to do.

What we do think needs to be done are the studies which we have called for and which DOE is acting on, they need to be completed as quickly as possible.

Chairman GLENN. Did you get into any of the budgeting figures that DOE has requested for environmental cleanup?

Mr. FULTZ. The atomic energy defense budget for DOE is about $8 billion, and I believe their budget request for this fiscal year for environmental safety and health problems is approximately $740 million, about 9 percent of the total budget.

Chairman GLENN. Of the total budget.

Mr. FULTZ. That is correct.

Chairman GLENN. That would include the production budget, the whole works.

Mr. FULTZ. Yes—that is not all DOE's budget; that is just the atomic energy defense budget.

Chairman GLENN. You mentioned transuranic waste in your testimony, too, which includes all the tools, paper——

Mr. FULTZ. It is low-level.

Chairman GLENN. It is low-level, but it is all the things that may be contaminated in this whole process. Now, they plan, as I understand it now, to keep 81 percent of this transuranic waste just where it is. Is there any indication that this is going to pose an environmental and health concern all of its own?

Mr. FULTZ. DOE has not stated yet what it plans to do with that 81 percent. There have been studies done by DOE that indicate there might be problems. For example, there was a study done in Idaho a couple years ago where they actually dug up some of this waste to see if there was any problem. They found that close to 70 percent of the barrels had leaked radioactive material into the soil. So there are significant potential problems with this. We also understand that there are three disposal sites of transuranic waste at the Hanford facility, which DOE plans to dig up and dispose of elsewhere because of its proximity to the Columbia River.

Chairman GLENN. Let me come back to money for just a moment here, because I think that is going to be an increasing factor in whether we can clean up or not, or whether we are even asking for enough funds to clean up or not.

I would not think that 700-some million dollars would do more than just start the job, would you? You said that was what was in the budget now.

Mr. FULTZ. That is what is in the budget, yes. Some of that money is spent for operating expense to, we would hope, identify the issues, the concerns, the problems that exist. And once they have those studies complete, DOE would be in a position and Congress would be in a position to make the priorities about where these funds should go.

Chairman GLENN. So we are not doing—most of that $700 million, then, is not going to actual cleanup activities per se, probably; it is going to studies to define the problem yet, is that correct?

Mr. FENZEL. If I could answer that, Mr. Chairman, the $740 million that we are referring to is part of DOE's atomic energy defense budget. Money in there goes not only to environmental cleanup, but also to safety upgrades for the defense complex. Other moneys are in other portions of DOE's budget, which also relate to environmental health and safety studies. For example, the new Assistant Secretary's budget comes from a different place in the budget.

Chairman GLENN. Okay. Out of that $700 million, then, you are talking about upgrades on what—not just environmental matters. You are talking about upgrades on reactors and so on?

Mr. FULTZ. Yes, sir.

Chairman GLENN. So the actual amount being spent on environmental safety and health matters is a small part, then, of that $700 million, I would gather; is that correct?

Mr. FENZEL. We have not done any detail to actually break it out. There are some big environment budget items in that $740 million; one is at Fernald for I think it is $35 million, and there is another one at Savannah River for $19 million, and there is a project at Lawrence Livermore to clean up. I think that one is about $19 million. But roughly, I would think and estimate about 50/50. Fifty of that is to environment, fifty might be to safety upgrades.

Chairman GLENN. In your opinion, those amounts allocated to the places you have just mentioned, is that going to be adequate to do any serious cleanup?

Mr. FULTZ. As I mentioned, the facilities which we have examined, it is our estimate that to clean those facilities up would cost literally over $1 billion. At these ten facilities we are aware of problems and have some rather detailed information on them.

I would just caution that it would be very difficult to make a decision as to what is enough or what is not enough until we know the true extent of the problem, which we do not know yet today.

Chairman GLENN. As something you pointed out just with a brief, one-sentence statement, I think, these plants may never be able to be cleaned up completely so they could be used for different purposes. We may be in a situation here where these plants are going to be under Government auspices in perpetuity, whether we like it or not.

Mr. FULTZ. Some of these facilities will require long-term institutional care, that is correct.

Chairman GLENN. Is the same thing true of regular commercial, electrical-generating facilities, nuclear electrical generating plants?

Mr. **Fultz**. They remove their waste and the waste is regulated by NRC at a disposal site. So the commercial sector does not release its waste into the soil as DOE does.

Chairman **Glenn**. The point I am making is that we are into a long-term situation where the increased costs of monitoring these plants and of keeping them under control are probably going to go on into the indefinite future, and we had better be budgeting for them so that we do not get caught short on down the road.

Cleanup is going to be expensive. We are going to have to replace some of these plants. Some can be modernized in place; some will have to be replaced. I think we are at a point in our nuclear program in which we now have to regroup and see what is safe to continue with and what is not safe to continue with. That is going to cost a lot of money, and I do not think people have really realized that yet.

Mr. **Fultz**. That is exactly why we called for the overall strategic plan last Thursday at this hearing, sir. We need to get a handle on the problems now, today.

Chairman **Glenn**. Well, I agree. And we cannot wait forever on that overall plan, either, because every day that goes by, we are wasting time in which people may get irretrievably damaged around these plants or working in these plants. We have got to get them cleaned up and made safe right now and then clean up from the previous activities of those plants, too.

Senator Adams.

Senator **Adams**. Thank you, Mr. Chairman.

I appreciated the seriousness of your comments. I want to ask you first about a particular type of radioactivity, because it is scattered throughout your statement and it is not often discussed. That is the effect of tritium. It is my understanding that it is very difficult to control. And you indicate that this is contaminating the groundwater supply.

Would you explain what your findings were on that and how the tritium actually interacts with the groundwater aquifer and the atmosphere around it?

Mr. **Fultz**. We found instances where tritium has contaminated Hanford, Mound and Savannah River. I think Mound provides an excellent example. In 1970 it was first discovered that tritium had contaminated groundwater. In 1976, due to an increase in the standards, the facility had to start dilution activities—again, this is 1976.

Senator **Adams**. What do you describe as "dilution activities"?

Ms. **Kruslicky**. Perhaps, Mr. Adams, I can answer that for you. Once Mound found the contamination in the drinking water aquifer, they started to pump water from the aquifer via a well that was located on the Mound facility. That allowed the water in the aquifer to be lowered and then to be recharged by clean water coming in from the Great Miami River, which is located very near the plant.

Those activities do continue today, although the frequency has been decreasing.

Senator **Adams**. The creeping effect of tritium is because it has a very light material, H3, and moves through the aquifer and atmosphere more so than any of the other products that are produced at these plants, isn't that correct?

Ms. Kruslicky. That is correct, sir.

Senator Adams. Could you describe that for me?

Ms. Kruslicky. Tritium is very soluble and interacts very easily with water. DOE estimates that tritium has a half-life of about 12 years. At Mound if that were so, the problem was found in 1970, and one would think 12 years later that the problem would be under control, but that does not seem to be the case.

Senator Adams. Well, it would be under control unless you produced more, would it? In other words, one of the problems that the Chairman has mentioned and is concerning me is that as you continue an activity and you do not ever stabilize it or clean it up, you continue to have an ongoing and rolling problem, don't you? Or, you explain to me in your words.

Ms. Kruslicky. You are correct, sir; you do continue to have the problem.

Mr. Fultz. It is our understanding, sir, that DOE does not know exactly where the tritium is coming from, where the source is, at Mound.

Senator Adams. Now, it is my understanding that there has been proposed—this has been testified to by DOE and announced—that in the case of Hanford, which is at stand-down for the time being, that there is to be a limited environmental impact statement or an environmental review. And you have indicated in your testimony on page 7 that none of these facilities would comply with RCRA at all. Would the environmental plan, as you have seen it at Hanford, if this starts up again, comply with RCRA?

Mr. Fultz. As we stated, none of the nine facilities have final RCRA permits. Ms. Kruslicky did do the review at the Hanford facility and was the evaluator-in-charge. She could address any of your questions regarding that issue.

Ms. Kruslicky. We did discuss with both State and EPA officials during the time that we were doing our work at Hanford what they felt about the draft environmental impact statement that DOE had prepared. Both the State and EPA, and I believe EPA in their formal comments to the Department of Energy, indicated that they did not feel that some of the proposed disposal methods as set out in that environmental impact statement would comply with the Resource Conservation and Recovery Act.

They pointed specifically to Hanford's single-shell tanks, RCRA requires secondary containment systems that the single-shell tanks do not have. Hanford does have 149 single-shell tanks that EPA did not feel would comply with RCRA, and there was one other example cited, and I cannot recall that right now, but we could provide that for the record.

Senator Adams. Would you please do that?

[The information requested follows:]

EPA also pointed out that RCRA does not allow for disposal of waste in the tanks. State officials pointed out that Hanford does not plan to install groundwater monitoring wells adjacent to the tanks and provided only limited data on the chemical substances in them.

Senator **Adams**. Were you aware, and have you seen when you were on that site, the large drilling equipment that is there that is proposed to be used now for civilian waste on the reservation?

Ms. **Kruslicky**. Sir, we saw the drilling equipment, but that was about all.

Senator **Adams**. The one that is 100 feet high and so on?

Ms. **Kruslicky**. Yes.

Senator **Adams**. What I am concerned about is if we have a site contaminated, as you have indicated, and the potential that it has not been examined for either CERCLA or RCRA, and we start a new program there before we have cleaned up the old one, is there a danger that the new program is going to run into the old one?

Mr. **Fultz**. That possibility could exist.

Senator **Adams**. They have lost some of those sites, haven't they—55 of them, as I remember—where they put the stuff on the surface, and it is not marked anymore?

Ms. **Kruslicky**. That, I do not know.

Mr. **Fultz**. We do not know that, sir.

Senator **Adams**. I will ask them when they come up.

Mr. **Fultz**. Okay.

Senator **Adams**. Thank you, Mr. Chairman.

Chairman **Glenn**. Thank you, Senator Adams.

A clarification here on the tritium. It was my understanding that at Mound, where we had had a tritium problem in the past—as you point out, the half-life of tritium is 12 years; it is not quite like plutonium and other things that get in the soil and are going to last for we do not know how long, hundreds of thousands of years, perhaps—but that the tritium leak there had been corrected, and so we are faced with only a cleanup problem. Now, from what you said a moment ago, I wanted to clarify this. Is the leak still occurring there as far as we know, and has that not been stopped yet, and are we just faced with a cleanup problem now? What is the status at Mound?

Mr. **Fenzel**. Mr. Chairman, when we looked at Mound and issued a report in September of 1986, we were looking at the sources of what was causing the tritium sources. It could have been some onsite soil contamination. It was not clear when we looked at it in 1986 that the actual source was identified and cleaned up. As a result, the tritium is still in the aquifer, and it is still contaminated.

Chairman **Glenn**. So we do not know, then, whether we have the leak cleaned up or not; is that correct?

Mr. **Fenzel**. We, GAO, do not know, sir.

Chairman **Glenn**. Okay. That is one we will have to look into further, because it had been my impression that that was well in-hand, and it is one that we want to ask DOE about as to what is being done in that area. So whoever is monitoring this here from DOE, we want to ask that question a little bit later.

If you do not have that immediate information, those of you here from DOE, you might want to make a phone call and see what you can find out about that, because that is very important.

Mr. **Fenzel**. We will find that out for you right away.

Chairman **Glenn**. You can find out, too, and I will get the DOE people up here to get on it, also.

Okay. We do have a lot of witnesses this morning, and I think we will get on with the other witnesses. We would appreciate your answering any additional questions we might have for the record.

Mr. **Fultz**. We would be pleased to, sir.

Chairman **Glenn**. Thank you very much. I appreciate your being here.

Let me just say again before you leave the table, I think GAO has done an excellent job in this area, and I want to congratulate all of you. You have been very forthcoming with the information. You have done this expeditiously. Reports have been good. You have been a major factor in bringing this to the attention of the public, and through the medium of our Committee here. I am sure this will not be the last hearing that we have on this subject with you people at the witness table.

We appreciate your cooperation very much.

Mr. **Fultz**. We appreciate and thank you.

Chairman **Glenn**. Our next witnesses will be representatives of the States: the Honorable Anthony J. Celebrezze, Jr., Attorney General, State of Ohio; Roger Stanley, Hanford Project Manager, State of Washington Department of Ecology; and Lewis Bedenbaugh, Director, Division of Facility Compliance, Bureau of Solid and Hazardous Waste, South Carolina Department of Health and Environmental Control.

Gentlemen, we welcome you to our hearing this morning.

Mr. Celebrezze, we are glad to have you with the Committee again this morning. We have worked together closely on some of Ohio's problems through the years, and we welcome you here this morning for your testimony and would welcome either your presenting it or an abridged version. In either event, the entire statement will be included in the record as though delivered.

TESTIMONY OF ANTHONY J. CELEBREZZE, JR., ATTORNEY GENERAL, STATE OF OHIO; [1] ROGER STANLEY, HANFORD PROJECT MANAGER, STATE OF WASHINGTON DEPARTMENT OF ENERGY; [2] AND LEWIS R. BEDENBAUGH, DIRECTOR, DIVISION OF FACILITY COMPLIANCE, BUREAU OF SOLID AND HAZARDOUS WASTE MANAGEMENT, SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL [3]

Mr. **Celebrezze**. Thank you, Mr. Chairman and Senator Adams.

I am Anthony Celebrezze, Attorney General for the State of Ohio.

I am grateful for this opportunity to be with you today and for your oversight hearing into the numerous and significant environmental problems we face as a result of noncompliance by certain Federal facilities with the environmental rules and regulations that all other facilities must follow.

Again, I ask that both my statement and my testimony be entered into the record.

Chairman **Glenn**. Without objection, it will be included.

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[1] See p. 89 for Mr. Celebrezze's prepared statement and attachments.

[2] See p. 110 for Mr. Stanley's prepared statement.

[3] See p. 121 for Mr. Bedenbaugh's perpared statement and attachments.

Mr. CELEBREZZE. The progress made in the protection of our environment over the last 20 years has taught us the importance of strong environmental laws which are administered and enforced by a strong and independent regulatory agency.

Experience has proven that the vigilance of an independent regulatory is an indispensable ingredient of an effective environmental protection program. The private sector as well as State and local Governments have learned to live with and to adjust to an independent assessment of their compliance with the statutes passed by this Congress and by the various States.

Those that do not comply with our environmental laws are faced with the prospect of strong enforcement action by regulatory agencies, including the assessment of fines and/or penalties commensurate with the degree of wrongdoing. This reality and the principle of checks and balances are now accepted facts of life in all segments of our society excpet one. That exception is the facilities owned and oerated by the Federal Government, particularly the Department of Energy.

DOE has taken the position that it and it alone determines whether it has complied with applicable environmental standards. While DOE, under pressure from the Congress and the States and citizens' groups, now pays lip service to some of the environmental laws, its compliance with those laws falls far short of an acceptable standard.

With the support of the Justice Department, DOE has argued that if its actions fail to meet the standards mandated by Congress, no one—and I repeat, no one, not even the U.S. EPA—may seek to impose penalties upon it for those violations.

It is apparently DOE's position that, unlike the rest of our society, they need account only to themselves for the record of environmental contamination and how it should be addressed.

Perhaps most distressing of all, however, is that indication that DOE is supported in this position by the U.S. Attorney General and the President. While DOE's rationale is indefensible to me, it is made even more reprehensible by the history of careless and, to me sometimes reckless, operation of DOE's facilities in Ohio which operate in serious violation of both State and Federal environmental laws.

In fact, their record of noncompliance and DOE's attitude toward compliance has been as bad as the worst private sector violators that I have encountered during my tenure as Attorney General of Ohio.

DOE's track record of noncompliance at the Ohio facilities and its position that, unlike the rest of society, its conduct is not subject to the independent review of the U.S. EPA and State environmental agencies, to me constitutes the ultimate hypocrisy. This is especially true given the Federal Government's reliance on penalties to achieve compliance by State and municipal Governments with Federal Government laws.

In the State of Ohio, we have three of the 23 DOE facilities. Our experience, I think, vividly illustrates the need for independent regulatory control of compliance with the environmental standards that have been set.

The three facilities are the Feed Materials Production Center near Fernald, Ohio; the Mound facility in Miamisburg—both of those are in the southwestern part of the State—and the Portsmouth Uranium Enrichment Complex at Piketon, in southern Ohio.

At Fernald, just over a year ago, on behalf of the Ohio Environmental Protection Agency, I filed a $200 million lawsuit against the Department of Energy and the contractor operating the Fernald facility, charging them with 27 counts of violating the State's hazardous waste and water pollution laws. I charged them with contaminating area groundwater and carelessly disposing of radioactive waste.

The Fernald plant processes uranium into uranium fuel for use in nuclear weapons production and also does other activities. Because the waste byproduct of this process is dangerous, safe methods for handling this waste are extremely critical.

What we have learned in the course of our investigation and litigation reveals some serious violations of State and Federal laws that DOE has been avoiding for many years. In fact, a report prepared by the U.S. Geological Survey back in 1951 warned DOE's predecessor, the Atomic Energy Commission, that due to the hydrogeology of the area, severe groundwater pollution could occur if wastes were not handled carefully. Unfortunately, these more than 30-year predictions and cautions proved to be prophetic. The groundwater in the area is contaminated, and some private wells in the area have been rendered useless.

Indeed, rather than implementing cautious waste disposal practices as recommended by the USGS report, DOE's waste-handling practices have been totally inappropriate and have contributed to the contamination.

For example, documents which have been acquired in our lawsuit have disclosed that the liners in waste pit number 5 have been torn on at least three occasions in 1981, 1982, and 1986. Waste pit number 5 is used for the storage of process water which has been contaminated with radioactive material. While the tears were eventually repaired, it is highly likely that radioactive wastewater escaped into the groundwater.

Even more serious, however, is the information which we discovered just last month. Apparently, there was an old abandoned well in the area now used for waste pit number 5. Last month, DOE admitted that it has no evidence that it ever capped or plugged that well before installing the radioactive wastewater pit. Obviously, the apparent failure to seal off the well before installing a pit for the storage of radioactive water is wholly unacceptable.

Further examples of the seriously deficient water pollution control practices are contained in my written testimony, and I am not going to go into agonizing detail here, Mr. Chairman.

DOE's water pollution control practices have been so deficient that on March 6, the Ohio EPA issued administrative orders requiring DOE to completely revise its water pollution control practices.

As I previously noted, the suit filed in March of 1986 charged DOE and the contractor with violating hazardous waste regulations and water pollution laws. Unfortunately the story does not stop there.

The Fernald facility has also been an irresponsible source of radioactive air pollutants for more than three decades. Many releases resulted from less-than-adequate maintenance of air pollution control equipment at the facility. For example, in 1984 a baghouse designed to prevent uranium from escaping into the air malfunctioned, setting off an alarm. The response of the facility was not to fix the baghouse but instead to recalibrate the alarm so it would no longer sound when the uranium releases occurred.

In light of these historical occurrences, tomorrow I will file another lawsuit against DOE and its new contractor, this time involving the unlawful releases of radon gas and uranium hexafluoride last spring. The incidents which led to this lawsuit are more fully described in my written submission.

The Mound facility located at Miamisburg, Ohio, is a research, development and production facility performing work in support of DOE weapons and energy programs, with emphasis on explosives and nuclear technology.

In late 1984, the Ohio EPA requested that I enforce several hazardous waste regulations against the Mound facility. After I sent them a notice of intent to file a suit pursuant to the RCRA Act, the facility corrected those violations.

Our concern at the present time is radioactive tritium contamination at this facility. We have had some discussion of it with Mr. Fultz from GAO, but a little bit of history. Before 1970, Mound discharged tritium-contaminated wastewater into a ditch and a canal that flowed into the Great Miami River. Tritium from the ditch and the canal seeped into the groundwater underneath the Mound facility. They have implemented a groundwater pumping process to reduce the concentrations of tritium, but significant pollution at that site still remains.

Recently, tritium has been discovered in groundwater seeping from the soil near the "SW" building at Mound, which was once the predominant site of tritium processing. Because the full extent of this contamination is not known, we sent a Freedom of Information Act request to the Department of Energy on January 21 of this year, seeking all documents relating to any pollution problem at Mound. We hope to receive those within the next month.

The Portsmouth facility in southern Ohio is a uranium enrichment complex that is in Piketon, Ohio. It has been in operation since 1954, enriching uranium for use in national defense and commercial nuclear reactors. It was previously operated by Goodyear Atomic, but is currently under contract with the Department of Energy, with Martin Marietta, to operate the complex.

The complex has been out of compliance with State and Federal hazardous waste laws since at least 1981. Until 1984, DOE maintained that it was exempt from hazardous waste laws on both the State and the Federal levels. Finally, on September 30th, 1986, it entered into an unenforceable Federal facility compliance agreement with U.S. EPA to resolve the violations of the Federal law that were going on at the facility. Unfortunately, however, the agreement did not address numerous violations of State water pollution and hazardous waste laws and did not provide for submission of plans and documents to, nor input by, the State of Ohio.

As a result, the Ohio EPA has requested that I send a notice of the State's intent to sue DOE and its contractors. We will take this action tomorrow.

All of the violations of Ohio's hazardous waste laws are numerous and serious. My written testimony provides the details, but I would like to highlight several of our concerns.

Two unapproved landfills at the Portsmouth complex have received hazardous and radioactive waste. During 1984 and 1985, 85,000 pounds of heavy metal sludge were buried at one of the landfills. Groundwater contamination by trichloroethylene and radioactivity has been detected in monitor wells which were installed in September of 1985, but the extent of the pollution is still not presently known.

DOE has submitted a plan for groundwater assessment and a closure plan for the landfills, but Ohio EPA believes that both plans are inadequate.

During a ten-year period beginning in 1974, DOE pursued a policy of disposing some of its radioactive and solvent-contaminated waste oil by spreading it on the ground and then roto-tilling it into the soil. Almost 50,000 gallons of waste were disposed of in this fashion. Since the solvent and uranium-contaminated waste does not break down, all that was accomplished was to bury the problem and bury its potential hazard for the present time.

This is clearly an inappropriate and illegal method of disposal. It also demonstrates the importance of independent State regulatory oversight and enforcement of the law.

Other problems which have been discovered at Piketon include extensive PCB contamination in and around the complex and illegal burning of waste oils and solvents in the facility's solid waste incinerator, possibly some containing mercury, which is a substance which is highly toxic to human beings.

We will continue to work for satisfactory solutions to the problems at all three facilities. I feel strongly that these situations could be either avoided entirely or corrected more rapidly if there was an independent regulatory authority given to U.S. EPA and the Ohio EPA to address these problems.

Mr. Chairman, before closing I would also like to share one additional aspect of this situation which troubles me. That is the active involvement of the Justice Department and even the President in insulating DOE and other Federal facilities from the consequences of their failure to comply with the environmental standards which are imposed on all other segments of our society.

Turning first to the role of the Justice Department, there are three specific policies which have been adopted that to me are very troubling. First, the Justice Department in an October 11, 1983 letter to Congressman John Dingell, declared that it will not file enforcement actions on behalf of the U.S. EPA against any Federal facility for violations of environmental laws at those facilities. Relying upon a theory of Constitutional law which to me is questionable at best, the Justice Department has argued that the failure of Federal facilities to comply with environmental standards is an intra-Executive Branch dispute. The Justice Department seems to suggest that the remedy for these violations is jawboning within the Executive Branch of the Government.

This approach reduces important considerations of public health and the environment to the level of mere bureaucratic in-fighting.

Without the specter of court action, I think there is a reduced indication or reduced encouragement on the part of the agency to do something about the problem.

The second policy that is troubling from the Justice Department is the nationwide campaign which they are conducting to prevent the assessment of civil penalties that must be applied to any other violator of the environmental laws.

Unfortunately, I am forced to agree with the remarks made by Senator Robert Stafford during the debates on the Superfund reauthorization, when he declared that, "No loophole, it seems, is too small to be found by the Federal Government."

Despite Congress' waiver of sovereign immunity, the Justice Department continues to file voluminous briefs filled with technical arguments which strain the very words used by Congress, trying to avoid the imposition of penalties on Federal facilities. That is exactly what they have done in response to our lawsuit for their violation of the hazardous waste and water pollution laws at the Fernald facility.

This is the same Justice Department, Mr. Chairman, that seeks to impose civil penalties on financially-strapped municipalities and townships that fail to meet the requirements of the Federal Clean Water Act. These conflicting postures constitute a double-standard which to me is of major dimensions.

The third policy of the Justice Department which troubles me is that Attorney General Meese has adopted a policy—I have provided a copy of it to the Committee—which effectively precludes settlements of lawsuits on terms which would commit a Federal agency to spend money to bring its facilities into compliance with environmental laws prior to approval by Congress of the appropriation to remedy the situation.

What is even worse, I think, is that pursuant to that policy, the agency is not even allowed to commit in the agreement to ask Congress for the needed funds. Since these projects can and do take many years to complete, this settlement policy appears to be a malevolent "Catch-22" which is designed to prevent such compliance commitments.

Finally, Mr. Chairman, in addition to the accountability roadblocks which have been constructed by the Justice Department, early this year the President issued Executive Order Number 12580 which effectively bestows upon DOE and other Federal facilities the final authority to determine, without any independent regulatory review, the best way of abating environmental contamination which the Federal facilities themselves have caused.

That approach, Mr. Chairman, asks too much from the people of my State of Ohio. Effectively, what the Executive Order says is that the same entity which has irresponsibly contaminated the soil and water of Ohio with radioactivity and hazardous materials is now given the responsibility to choose a comprehensive remedy to abate the contamination, which never should have occurred in the first place.

In Ohio, much of the contamination caused by the Department of Energy is a result of deliberate decisions that were made by the Department and its contractors, knowing full well that contamination would probably follow.

To now expect the same people who knowingly caused this contamination to exercise the prudence and good judgment to expend the funds to thoroughly abate the contamination is hard to believe.

Mr. Chairman and Senator Adams, I would be the last one to sit here and say that considerations of national defense should not be uppermost in the operation of these facilities. I do think, however, that there is a responsibility that goes along with those considerations; that that responsibility has not been exercised here, and the lack of an independent regulatory authority would go a long way toward getting that accountability and responsibility.

Mr. Chairman, I commend you and the members of the Committee and Senator Adams for these hearings. I urge you to actively press for more comprehensive and specific waivers of sovereign immunity in the environmental statutes and to use your power to force reform within the Federal agencies and a commitment to environmental quality from them.

Our Nation was built on the principle of checks and balances in order to avoid omnipotent power being exercised by a single person or a single entity. This basic tenet of our Government should not be violated in as important an area as the environment.

Mr. Chairman, I thank you for the opportunity to testify, and I would be happy to answer any questions at this point.

Chairman GLENN. Thank you very much, and we will get to general questions later, but I want to make sure this Committee understands some of the key points in your testimony today.

You have told this Committee that in Ohio, the Department of Energy's record and attitude toward compliance with environmental laws is as bad as any you have seen from even the worst violators in the private sector; is that correct?

Mr. CELEBREZZE. That is correct, Mr. Chairman.

Chairman GLENN. And you have also said that at the Portsmouth Uranium Enrichment Plant near Piketon, Ohio, the Department of Energy actually disposed of 50,000 gallons of radioactive and hazardous materials by spreading it on the ground and rototilling it into the soil; is that correct?

Mr. CELEBREZZE. That is also correct, Mr. Chairman.

Chairman GLENN. And you have also told this Committee that despite the fact that you will soon be filing two new lawsuits against the Department of Energy and its contractors on behalf of the people of Ohio, the Reagan Administration has refused to file enforcement actions of its own against DOE—in fact, is actively working to block any civil penalties from being imposed against DOE; is that correct as well?

Mr. CELEBREZZE. That is correct, Mr. Chairman.

Chairman GLENN. Thank you. We will get to more detailed questions later on.

Our next witness is Roger Stanley, Hanford Project Manager, State of Washington Department of Ecology. Mr. Stanley, welcome to our hearing. We are glad to have your entire statement in the record, an abridged version if you would care to give that; in any event, the entire statement will be included in the record.

Mr. **Stanley**. Thank you, Mr. Chairman, Senator Adams. I do have a brief verbal statement as well as a prepared statement which I would like to have entered into the record.

My name is Roger Stanley, and I am here representing the Washington State Department of Ecology as its Hanford Site Project Manager. In that capacity, I am responsible for the State's environmental activities aimed at ensuring regulatory compliance on the Department of Energy's Hanford site.

I spend much of my time working with hazardous waste management issues.

I would like to express our very deep concern over the Department of Energy's continuing refusal to comply with State and Federal environmental laws. I would also like to note that in Washington, this refusal is resulting in the continued contamination of the environment, the spread of radioactive and chemical contaminants, and in delay in site cleanup and the implementation of sound waste management systems.

Of particular concern to us is the Department of Energy's refusal to acknowledge the applicability of EPA and State hazardous waste programs to hazardous wastes which also contain radioactive elements, commonly called mixed waste. Instead, the Department of Energy has spent the past two years attempting to gain the exclusion of mixed waste through a number of purely definitional processes. They have offered virtually no rationale for this presently proposed rulemaking.

Meanwhile on the Hanford site, U.S. DOE continues to store one of the world's largest accumulations of hazardous, toxic mixed waste in some 170 buried tanks. Over 65 million gallons of this waste are in storage at the present time.

Many of the older of these tanks have been shown to have leaked to surrounding soils. U.S. DOE also disposes of very large volumes of solid or containerized mixed waste by simple landfill—some 5 million pounds in 1986, including toxic metals, organics and corrosive liquids.

More dilute mixed waste streams are simply discharged directly to ground.

Progress over the past few years—and there has been some—focuses primarily on nonradioactive waste management or on facilities which are peripheral to the core of Hanford's activities. This progress was made only after U.S. DOE lost a jurisdictional lawsuit over these wastes in the State of Tennessee.

Hanford's central mixed waste facilities are far from compliance with either EPA's RCRA standards or those of the State. Groundwater monitoring for hazardous constituents is in many instances almost entirely lacking.

I submit that formal compliance with EPA's RCRA standards and Washington's dangerous waste management program do not constitute a threat to either the U.S. DOE or the continued operation of its Hanford defense facilities. I would also like to note that formal recognition of the applicability of these programs and the submittal of required permit documents is the only way that all the management issues with these waste streams can be tabled and actually dealt with.

We need to get on with properly managing these sites and with cleaning up those areas of Hanford where we have serious contamination. In fact, I know that there is an increasingly large segment of Hanford contractors who are tired of U.S. DOE's legal foot-dragging on this mixed waste issue and also want to get on with this very important business.

I consequently encourage the Committee to take strong action along these lines and to aid both the EPA and the States in their abilities to ensure the proper management of all these wastes.

Thank you very much, and I will be happy to answer any questions.

Chairman GLENN. Thank you very much.

Our next witness is Lewis Bedenbaugh. I think I have pronounced that correctly, Mr. Bedenbaugh.

Mr. BEDENBAUGH. That is correct, Senator.

Chairman GLENN. Mr. Bedenbaugh is Director, Division of Facility Compliance, Bureau of Solid and Hazardous Waste, South Carolina Department of Health and Environmental Control. Welcome, Mr. Bedenbaugh. We look forward to your testimony or an abridged version thereof; in either event, the entire statement will be in the record.

Mr. BEDENBAUGH. Thank you, Mr. Chairman.

Mr. Chairman, Mr. Adams, thank, you for the opportunity to appear before you this morning. I am Lewis Bedenbaugh, and I direct the State equivalent to the RCRA enforcement program in South Carolina.

I am here representing Mr. R. Lewis Shaw, Deputy Commissioner, who was unable to attend. With the permission of the Committee, I would like to briefly summarize my prepared statement as follows, but would request that the full statement be entered into the record.

Chairman GLENN. Without objection, it will be entered.

Mr. BEDENBAUGH. Most Federal environmental statutes envision that States will assume operating responsibility for environmental programs, including those relating to Federal facilities.

This concept of delegation has been well-received by most States including South Carolina. With the delegation come certain responsibilities. We are obligated to be equitable, effective, and efficient—equitable in the sense of equal application of the law; effective meaning that we achieve our goals of environmental and public health protection, and efficient in the sense that we get the most from our money. In short, we are expected to be timely and appropriate and in the execution of our duties.

In recent years, Congress and EPA have increased their expectations concerning the issue of timely and appropriate. The reason is clear. For example, in the case of the Resource Conservation and Recovery Act, it is a fact that most industries have been slow to comply with what EPA has called the high-priority areas of groundwater monitoring, closure/post-closure care, and financial responsibility.

In South Carolina and other States, enforcement actions have been initiated to require that such facilities come into compliance with these requirements or cease their hazardous waste activities, particularly that of land disposal of hazardous waste.

Penalties have been routinely assessed in these cases as directed by EPA policy. We in South Carolina have seen fit to require the same of Federal facilities as we require of any other entity.

We have learned quickly, however, that this would be a difficult assignment, particularly when civil penalties are deemed appropriate.

In general, we have found that the timeliness standard is very difficult, if not impossible, to achieve when dealing with Federal facilities. This is largely due to the issue of States' authority over Federal facilities, the question of whether sovereign immunity has been expressly waived under certain Federal statutes.

Rather than litigate this issue, in the case of DOE's Savannah River plant, we have negotiated long and hard and ended up with several consent orders and settlement agreements that require DOE to comply with the South Carolina statutes and regulations and pay settlements. Although we are not totally satisfied with DOE's accomplishments, we are pleased with the progress we have seen in the last year. We do, however, feel that the issue of authority must be addressed if States are expected to regulate Federal facilities to the same degree as any other entity and within the time frames as prescribed by EPA.

I will be glad to answer any questions you might have.

Chairman GLENN. Thank you very much, gentlemen, all three of you, for good statements.

Attorney General Celebrezze, do you have any thoughts on legislation which would force DOE to improve environmental performance at its facilities other than the two suits that you are filing and continuing along this suit-filing route?

Mr. CELEBREZZE. Mr. Chairman and Senator Adams, there are a couple of points I would like to make that could be addressed legislatively.

First of all, it is not clear whether mixed waste falls under the normal hazardous waste laws—mixed waste being that that is partially hazardous and partially nuclear waste. Legislation that clarifies that, I think, would save a long, drawn-out court battle to have the courts give us advice on where that stands. So that is one thing that I think legislation could help, and I think it should be a priority item, because most of the hazardous waste at DOE facilities is also radioactive.

Second, I think legislation could be enacted to make DOE responsible to an independent environmental agency for the manner in which it manages its radioactive wastes. Obviously, the whole tenor of my testimony was that checks and balances are healthy in our society and in this Governmental process of ours. I think subjecting DOE to the same kind of regulatory agency supervision that virtually every other part of our society is subjected to would be very healthy. I think it would make them manage their facilities in a more environmentally sound manner.

Third, I think the environmental statutes might be amended to even more clearly waive Federal sovereign immunity for the payment of civil and criminal penalties and other forms of sanctions. We are a society that acts under impetus, and the impetus of a threatened court action or civil penalties, I think, does act as an encouragement for facilities whether they be Federal agencies or private facilities to come into compliance with the law.

At the very bare minimum, I think there should be a clarification of what appears to be a double-standard, where municipal sewage treatment plants are being expected to pay civil and cash penalties, and yet Federal facilities are being exempted.

So those are three areas, Mr. Chairman, where I feel that legislation might clarify and assist in operating these facilities in more of an environmentally safe manner.

Chairman GLENN. Mr. Stanley, Mr. Bedenbaugh, do you agree with those suggestions?

Mr. BEDENBAUGH. Yes, sir, we do in South Carolina.

Mr. STANLEY. Yes, Senator.

Chairman GLENN. Mr. Stanley, are Hanford's tank wastes high-level radioactive or low-level wastes?

Mr. STANLEY. As those wastestreams are generated—and there are approximately 27 wastestreams that have historically been routed to those tanks—they contain relatively low levels of radioactivity. U.S. DOE has noted that they are typically less than 100 nanocuries per gram, which is the NRC's cutoff for low-level radioactive waste.

However, they have also leaned on the definition of high-level radioactive waste on occasion, and it is very important that they recognize that if defined as high-level radioactive waste, those tank wastes must be disposed of within a high-level radioactive waste repository. So we have a situation where I think U.S. DOE is actually caught between a rock and a hard place.

Chairman GLENN. That is under the Nuclear Waste Policy Act, isn't it?

Mr. STANLEY. That is correct, sir.

Chairman GLENN. Would the proposed repository be okay to receive those wastes, high-level wastes?

Mr. STANLEY. Not as they presently exist in the tanks, Mr. Chairman. U.S. DOE's plans for those 27 wastestreams actually call for only about three or four of them to be routed first to a separation facility where the radioactive part——

Chairman GLENN. Okay, that is what I was going to ask. Would regulation of these processed wastestreams preclude the use of Hanford's tanks?

Mr. STANLEY. No, they would not. In fact, the double-shell tanks would wind up being classed as hazardous waste storage facilities.

Chairman GLENN. Mr. Bedenbaugh, what does your agency perceive as the major obstacles to its regulatory role over DOE's Savannah River production facility?

Mr. BEDENBAUGH. Mr. Chairman, I think as General Celebrezze has indicated, and you yourself, we feel that there is a definite need for independent oversight. An important ingredient in any such oversight is the ability or the authority which is necessary in order to exercise this oversight.

I think we feel like that authority is only able to be exercised if it is accepted by those people you are trying to influence or exercise authority over.

We feel like DOE has made progress in many areas. We feel that the authority issue, however, must be settled, the waiver of sovereign immunity, in order to be better able——

Chairman **Glenn**. Yes. Well, do you suggest any other statutory or regulatory changes in addition to those that Attorney General Celebrezze mentioned a moment ago; are there any additions you would like to add to that list?

Mr. **Bedenbaugh**. I think we might add that the Clean Water Act needs to include possibly some standards as it relates to groundwater. The States are currently using their own generic pollution control authority to handle these groundwater issues.

Also, I think the issue of financial assurance which is required of most industry in a regulatory sense may be looked into and possibly be required of Federal facilities as well.

Chairman **Glenn**. Mr. Celebrezze, what is the source of your information on pollution problems at Fernald?

Mr. **Celebrezze**. Mr. Chairman, Members of the Subcommittee and Senator Adams, our source is the documents themselves from the facility that we have achieved and gotten in our lawsuits and Freedom of Information Act requests. We still have some 350 file cabinet drawers that we are reviewing to come up with—before we are ready to seriously talk on this thing—we keep coming up with surprises as we go through these documents.

So the source of our information is the document themselves that were kept at the facility over the years.

Chairman **Glenn**. Three hundred fifty file cabinets?

Mr. **Celebrezze**. Yes, sir. They are currently in Las Vegas, Nevada, and we are contracting with a contractor to microfiche them and get them back to Ohio so we can analyze them.

Chairman **Glenn**. Why were they taken to Las Vegas?

Mr. **Celebrezze**. Senator Glenn, I have no earthly idea why they were taken to Las Vegas. Several members of my staff are lobbying rather heavily to be able to go out there and spend some time analyzing those documents, but we have determined that the more efficient way to do it is to microfiche them and bring them back to Ohio.

Chairman **Glenn**. That is an expensive process in itself, isn't it, if you have that much?

Mr. **Celebrezze**. Yes, sir.

Chairman **Glenn**. Would you describe in detail what occurred with the release of the radon gas at Fernald?

Mr. **Celebrezze**. Senator, it is interesting that the release took place in—I do not want to go into the circumstances or who was in the area at the time that the release took place. The fact that it was your opponent last year, Senator, I am sure has nothing at all to do with why the radon gas was released. [Laughter.]

Seriously——

Chairman **Glenn**. It had better be "seriously" after that. [Laughter.]

Mr. **Celebrezze**. The material that produces radon gas had been stored in a dome at the Fernald facility. It is waste from the Manhattan project. As this material deteriorates, it creates a radon gas. Radon gas had been built up in the dome or the container that it was stored in. The facility had contracted with a contractor to come in and seal off the cap of the dome. While they were sealing it off, a small leakage of radon took place, and the decision was made that the radon should be totally vented so that what we had was a situation where they literally vented the material that they were trying to seal in the dome. The material was vented, and what was even worse from our standpoint is that the Ohio EPA was not notified for over 24 hours that this radon gas had been vented into the air.

But it was in the process of trying to seal off that dome that they made the decision to vent off the very material that they were trying to seal into the dome.

Chairman GLENN. One of the frequently heard arguments is that the issues surrounding abating the hazards of both radioactive and hazardous waste at DOE facilities is so technically complex and requires such special expertise that DOE's technical staff should be allowed to regulate their own environmental compliance; that we do not have an adequate number of experts to do this.

Do you agree with that or not?

Mr. CELEBREZZE. Mr. Chairman, there is nothing sophisticated about dumping 50,000 gallons of radioactive waste oil on the ground and roto-tilling it into the soil.

I would submit to you that while I acknowledge that DOE does have technical expertise, that there may be other entities, U.S. EPA and even State EPA's, that have the technical expertise to do some oversight regulatory functions at these facilities.

Chairman GLENN. Senator Adams?

Senator ADAMS. Thank you, Mr. Chairman.

General Celebrezze and other members of the panel, Mr. Stanley, you have indicated in your statement at pages 12 and 13, General Celebrezze, that in effect, why should you give the cleanup of this waste to the people who created it.

That leads me to this kind of a question. All of you have testified how badly they have done this. Do you really think that DOE should continue to be given new program jurisdiction, for example, to handle a civilian waste disposal program, when they have such a mess out there in their present defense waste disposal program?

Mr. CELEBREZZE. Mr. Chairman, Senator Adams, I have some ambivalence to that. The obvious answer is "no"; until we clean up and get straight what we are doing now, there should not be any additional responsibility given. But I think a key to that responsibility being enforced is the aspect of an independent regulatory authority.

Senator ADAMS. In other words, you are recommending that there be someone besides DOE who oversees this waste disposal system, both defense and civilian, because of the record that they have created.

Mr. CELEBREZZE. That is correct, Senator Adams.

I also might make the point that—and I assume you will hear it sometime this morning—that they do enter into Federal facilities agreements with the U.S. EPA. Our experience at the Fernald facility was that they fended off the U.S. EPA for literally years until it was obvious that we were going to file our lawsuit. Then DOE went to Region V of the EPA and quickly asked them to negotiate an agreement.

So I think that there still is a necessity for a statutory, independent oversight agency, a regulatory agency, to create the checks and balances that our society is built on. And I think that until that takes place, I would be reluctant to give more responsibility to an agency that has such an abysmal track record.

Senator **Adams**. Mr. Stanley, what is your experience in this regard, and what is your recommendation?

Mr. **Stanley**. Due to U.S. DOE's extremely poor history of waste management on the Hanford site, we view independent oversight of those activities as absolutely essential—and oversight which includes provision for full enforcement.

U.S. DOE basically needs to be forced to recognize that they are not immune to laws such as RCRA or the CERCLA requirements, so that the States and the Federal EPA can then begin working with them to make sure that they do actually comply.

Senator **Adams**. Mr. Stanley, you say in your written testimony, "It is the position of both DOE and the Department of Justice that EPA cannot enforce RCRA compliance against Federal facilities." So is it your position that legislation is necessary to provide this, or a separation in some way, of an oversight function of the waste program of DOE?

Mr. **Stanley**. As far as actually having the enforcement capabilities, yes, sir.

Senator **Adams**. You have indicated the practice that we are aware of on the single-shell tanks at Hanford, and this lagging behind private compliance and the disposal into the soil directly at Hanford and, as was indicated in Ohio. Aren't we really just creating enormous Superfund sites and a Superfund problem every time this happens?

Mr. **Stanley**. Yes, sir, we are. U.S. DOE's longstanding practice of discharging low-level liquid waste that also contains chemical contaminants has resulted in the contamination of a large portion of the soils within the Hanford sites as well as contamination from the single-shell tanks.

So basically what we are facing, then, is the prospect of many, many years of actual remedial action in addition to putting technically sound waste management systems in to start managing these wastes in the proper fashion.

Senator **Adams**. Mr. Bedenbaugh, you indicate some success with these agreements. Are you satisfied with the protection that has been given? I know it has been mentioned in prior testimony before the Committee of the cracks in the walls of the reactors and the potential for groundwater and river contamination at Savannah River.

Mr. **Bedenbaugh**. Senator Adams, I will not be able to respond as relates to the cracks in the walls of the reactor units. I am not technically qualified to speak to that.

Now, I will say that the improvements that have been made within the last year are real. We have seen a move and commitment toward addressing environmental issues. The agreements we have reached with the Department of Energy have been substantially complied with.

I think, as indicated by General Celebrezze and my friend from Washington, there are tremendous environmental problems at the

Savannah River plant, as there are in those other locations, and it is going to take a long-term commitment on the parts of lots of people to ensure that these environmental issues are corrected.

Senator **Adams**. Do you feel that there should be a separate review agency or separate agency in charge of this waste disposal and environmental problem, or do you want to continue on with U.S. DOE?

Mr. **Bedenbaugh**. We feel that there needs to be independent review. We feel that the States have certain technical expertise in that regard if the issue of the waiver of sovereign immunity is resolved such that the States can implement the authorities that we feel Congress delegated by way of EPA to the States.

We do concur that there is a need for independent oversight of the Department of Energy facilities.

Senator **Adams**. What I really am asking all three of you—and I think the Chairman has, also—is do you feel that you need some Federal legislative help in terms of dealing with U.S. DOE on waste disposal, whether it be defense or it be civilian. You have testified about defense because we have been operating on that so much more. We are about to start a civilian program. And I think our concern—at least mine is—that we have the proper agencies involved and the proper legislation in place to see that the right result occurs.

Now, I want to know do you feel that we need a change in legislation on waste disposal and give it to another agency.

Mr. **Celebrezze**. Mr. Chairman, Senator Adams, I feel that some legislative changes are very necessary and that there be the checks and balances.

I am not confident in the DOE's ability to deal with these problems, but I think with proper oversight, they could be brought into compliance, with proper regulatory pressure, both by the U.S. EPA and by the State regulatory agencies, that those facilities could be brought into compliance, and they could be good citizens of our State, just like we demand of the private sector when they operate facilities that produce hazardous waste.

Senator **Adams**. Thank you, Mr. Chairman.

Chairman **Glenn**. Thank you very much.

Senator Cohen is not only on this Committee with us, but I also share a seat with him on the Senate Armed Services Committee, where we are concerned about the production side of this whole equation. But we share our concerns and have for a long time on what happens on this Committee with regard to safety as we have that requirement for production. He is also Ranking Member on the Intelligence Committee, so in that they also get into this area to some extent.

Senator Cohen.

OPENING STATEMENT OF SENATOR COHEN

Senator **Cohen**. Thank you very much, Mr. Chairman. I apologize for not being here sooner. I obviously missed a good deal of testimony—and perhaps I missed something else.

I would like to insert my prepared statement into the record rather than reading it at this time.

[Senator Cohen's prepared statement follows:]

PREPARED STATEMENT OF SENATOR COHEN

Mr. Chairman, today's session on environmental problems at the Department of Energy's defense facilities should be very useful in focusing our attention on serious issues which calls into question the Department's ability and comment to carry out an environmental cleanup program.

Nowhere has Congress written laws which state the defense of our country is to be upheld at any cost, but it is becoming more and more apparent to me that the DOE believes it is above, or perhaps, outside the realm of law. Congress has, in fact, enacted many laws which address the cleanup of toxic disposals, and the contamination of groundwater and soil which results from unnoticed or, worse, ignored leaks and spills. One purpose of today's hearing should be to determine exactly what laws DOE is covered by and address the deficiencies which have allowed the environmental threats documented by the General Accounting Office to occur.

I am particularly concerned about DOE's handling of these problems because of the possibility of its searching, in my home state, for a site for a high-level nuclear waste repository. I believe I am understating the case when I say that there is a lack of faith, on the part of the American people, in DOE's ability to ensure that underground burial of the waste will be adequately monitored. If it cannot correct above-ground disposal problems, how much worse will it be when the waste is out of sight? Will it also be out of mind?

Protecting our environment for the future is as important as facing the reality of the present, which at DOE defense facilities is an unequivocal mess. If the DOE were a civilian or commercial facility, it would have been found in substantial violation of the law and penalized accordingly, probably even closed down. The question arises in this context, as it did during last week's discussion on nuclear reactor safety: Should the DOE be held to a different standard than others when it comes to its defense facilities? In protecting the defense production and research program, have we left ourselves defenseless against contamination?

These are questions the Committee will be looking at closely, and as a member of both the Governmental Affairs and Armed Services Committee, I share with Sen. Glenn the opportunity to address this issue from a broad perspective. I look forward to working with the Chairman to forge a more responsible course for the DOE to follow, and the testimony gathered in this series of hearings should help us immensely in carrying out that task.

Senator **COHEN**. Mr. Celebrezze, I notice you have a signal there that you are celebrating Saint Patrick's Day today, as well, on your lapel.

Mr. **CELEBREZZE**. Mr. Chairman and Senator Cohen, that is an indicia of the fact that on Saint Patrick's Day in Cleveland, my name is "Kelly-brezze". [Laughter.]

Chairman **GLENN**. That is known as being "Mediterranean Irish."

Senator **COHEN**. And mine happens to be "Cohan" on today's occasion. [Laughter.]

I just have one question, really, that I have from listening to your responses to the questions from Senator Adams and Glenn. Is there a need for an independent review for the fact that DOE does not feel it is subject to the same restrictions and laws because there is a defense facility involved? Is it one of attitude, or is it one of competence?

Mr. **CELEBREZZE**. Mr. Chairman, Senator Cohen, I think it is a question of attitude that may be affecting their competence. In other words, by having the attitude that they are exempt from any type of oversight or regulation, I think their practice has become sloppy.

As an example, at the Fernald facility, they changed contractors from NLO to Westinghouse. We viewed that initially as a positive sign. The fact was that all they did was change the name on the door and change some of the top management. The middle management people who were implementing the policies that got them into trouble at that facility over a 30-year period are still there.

I am not saying that those people are not competent or could not be guided through policy guidance into doing what needs to be done, but the fact is that the attitude leads to a relaxing of management that I think is causing a lot of these problems.

Senator COHEN. If there were a change in the law to make it very clear that the Department of Energy is required to adhere to the same standards we would apply to civilian reactors or production facilities, would that, in your judgment, cure the problem, or would the attitude still remain, affecting their competence?

Mr. CELEBREZZE. Mr. Chairman, Senator Cohen, I guess I would have to say I would view that as a positive step and hope that the attitude would change. I think the independent regulatory oversight is very important in encouraging a change of attitude, also.

But I tend to be an optimist, and I would like to think that if those steps were taken that the attitude would change and that we could have good citizens of these Federal facilities in our State and in other States where they are located.

Senator COHEN. Do you see any justification for having a different standard for a facility which produces plutonium or nuclear materials for weapons as opposed to energy?

Mr. CELEBREZZE. Mr. Chairman, Senator Cohen, I think national defense has to be paramount, but I am a firm believer that within the parameters of producing this material, that the environment can be protected, also. I would be the last one in the world to say that we should in any way derogate our national defense effort or ability.

But I guess I feel that the two are not necessarily exclusive; that you can have both; you can have strong national defense with regard to these facilities and their production, but you can also have compliance and safe environment if the commitment is there to have them go hand-in-hand.

Senator COHEN. Mr. Stanley?

Mr. STANLEY. Yes, Senator Cohen. I would like to second Mr. Celebrezze's comments and note that at the Hanford facility, as far as the U.S. DOE staff are concerned, that I think it is also a matter of overall attitude toward waste management and working with both the Federal EPA and the State of Washington.

U.S. DOE needs to recognize that it needs to comply fully with the environmental laws for all of their wastestreams, and that in the instance of those direct process wastes that are generated by the Hanford facilities, that full compliance does not represent a threat to their defense facilities.

Senator COHEN. Mr. Bedenbaugh?

Mr. BEDENBAUGH. Senator, I would just echo what General Celebrezze has indicated. Again, as I stated earlier, I think it is important that in order for a State to exercise authority, it has to be accepted by the people that you expect to have authority over.

I am kind of quoting from an old professor of public administration I had. As they say down South, it is like leading a horse to a trough and trying to make him drink. You can lead him there easily, but as far as making him drink, that is somewhat difficult. I think we have got them sipping the water in South Carolina, but not drinking yet.

Senator COHEN. Hopefully, not radioactive water. [Laughter.]

Senator Adams raised another issue, which sort of a side issue as far as this hearing is concerned. We both face the prospect of the Department of Energy pursuing a repository for high-level radioactive waste in our respective States. And I must say it would be an understatement to indicate that the people of my State have suffered a severe lack of confidence in the Department of Energy's handling of the issue to date. And I think until we resolve this issue in terms of how we cope with an existing onsite disposal problem, we are going to continue to have that kind of distrust and frustration about the depositing of high-level radioactive waste in underground burial vaults for 20,000 to 30,000 years.

So, Mr. Chairman, I appreciate your having the hearing on this matter.

Chairman GLENN. Thank you, Senator Cohen.

Just a couple more questions. Mr. Attorney General, isn't it true that the Justice Department under Administrations prior to this one also followed a policy of encouraging Federal agencies and the U.S. EPA to work out environmental compliance problems within the Executive Branch rather than resorting to judicial enforcement?

Mr. CELEBREZZE. Mr. Chairman, that is true. Under the Carter Administration, there was an Executive Order that was very similar, with one glaring exception, and that was that under the Carter Administration the encouragement was to resolve all differences prior to seeking judicial resolution. Under the present policy, there is an absolute prohibition against seeking judicial resolution.

So there is a big difference in what past Administrations, both Republican and Democrat, have done and what this one is doing.

The threat or the sword of judicial action hanging over someone's head, we have found in some instances is encouragement for them to come into compliance or work to resolve a matter. There is a significant difference between what this Administration is doing and what previous ones have done.

Chairman GLENN. Well, you said in your testimony earlier, and I quote, from page 12 in the text I have here, "Indeed, pursuant to the Attorney General's policy, the agency is not even allowed to commit to ask Congress for the needed funds." Are you sure of that statement? That is a damning statement if I ever heard one, that they cannot even ask for the funds to clean up the mess.

Mr. CELEBREZZE. Mr. Chairman, I have submitted a copy of that policy along with my statement. That is the most disturbing aspect to me. I could perfectly well understand not committing to spend money that Congress has not appropriated. That is a fact of Government, and it is as it should be. But not to even commit to seek the funding to clean up the mess, whatever it is, to me just precludes any sort of activity to clean up these facilities.

Chairman GLENN. I have just three brief questions I would like to ask each one of you.

Would you favor legislation to clarify Congress' intent that EPA have total regulatory jurisdiction over all mixed waste at DOE sites?

Mr. Bedenbaugh?

Mr. BEDENBAUGH. If that authority would be delegated to the States eventually, yes, sir.

Chairman GLENN. Mr. Stanley?

Mr. STANLEY. Yes, I would, Mr. Chairman.

Mr. CELEBREZZE. I would concur with that, Mr. Chairman.

Chairman GLENN. All right, good.

Would you also favor legislation to give an outside body such as ACRS, the Advisory Committee for Reactor Safeguards, that operates with civilian nuclear power plants and so on, or a nuclear safety board, regulatory authority over nuclear reactor safety at DOE sites?

Mr. Stanley?

Mr. STANLEY. Mr. Chairman, I am not involved with nuclear safety, so I cannot address that issue.

Chairman GLENN. Okay. Mr. Celebrezze.

Mr. CELEBREZZE. I have to echo my colleague from Washington State.

Mr. BEDENBAUGH. I have a similar problem, yes, sir.

Chairman GLENN. All right. Would you favor legislation to remove DOE's exemption from the provisions of the OSHA Act? Right now, they are exempted from OSHA requirements.

Mr. Bedenbaugh?

Mr. BEDENBAUGH. The Department of Labor in South Carolina runs the Occupational Safety and Health Program, so again I would have to defer on that question.

Chairman GLENN. All right. Would you favor that, Mr. Celebrezze?

Mr. CELEBREZZE. Mr. Chairman, I would favor it, and I think the hearings that you conducted in Cincinnati last year brought out some horror stories that should be addressed by removing that exemption.

Chairman GLENN. They did indeed; you participated in that hearing very effectively also.

Mr. Stanley?

Mr. STANLEY. There again, Mr. Chairman, I am afraid I cannot address that.

Chairman GLENN. Okay, fine.

Senator Mitchell, we are just about to wind up with this group of witnesses. Did you have any comments or questions?

Senator MITCHELL. I have no questions, Mr. Chairman. I do have an opening statement I would like to have placed in the record at the appropriate point.

Chairman GLENN. Without objection, it will be included.

[Senator Mitchell's opening statement follows:]

OPENING STATEMENT OF SENATOR MITCHELL

Good morning, Mr. Chairman. I am pleased to join you and other Committee members to hear testimony on the health, safety, and environmental conditions at the Department of Energy's nuclear weapons production facilities.

This is the second hearing the Committee has had on this subject; our first focused on the safety of DOE production reactors. What we learned at that hearing, particularly from representatives of the General Accounting Office was unsettling.

We will hear again from the General Accounting Office and representatives from the Environmental Protection Agency and DOE today. The reports that GAO has already performed indicate that serious environmental problems exist at many of the facilities surveyed. I am sure we'll get into those problems in some detail this morning with all the witnesses.

The questions surrounding DOE's performance in meeting this nation's environmental standards is not an academic exercise for the people of my State because Maine has been identified as a potential host for a high-level nuclear waste repository by DOE.

There is great concern over the potential adverse impacts on Maine's environment by a repository and many people in the State take no comfort from what we've seen of DOE's management of its existing nuclear weapons production facilities.

During the course of these hearings, we will solicit the views of representatives from several representatives of state environmental protection agencies in states now hosting DOE facilities on that agency's overall performance and how this Committee may best respond to the present situation.

I want to commend you, Mr. Chairman, for scheduling this morning's hearing, indeed the series of hearings this Committee will hold in the coming weeks on this significant issue.

Since coming to the United States Senate, you have been a leader in addressing the dangers inherent in the present arrangement by which DOE is responsible for both the management and regulation of these facilities.

I have little doubt that you'll continue to vigorously pursue this issue during the 100th Congress. I look forward to working with you in that endeavor.

Chairman GLENN. Senator Adams, did you have anything further?

Senator ADAMS. No. I just want to affirm the statement that Senator Cohen made, that those of us that are faced with this new program are at a low degree of confidence in having this Department run it for us. And I think his statement was well made, and I echo it, and we are hopeful that the testimony that you have given this morning and that of the other witnesses will assist us in finding a way out of this.

Senator MITCHELL. Mr. Chairman, let me say that I did not hear Senator Cohen's statement, but I usually agree with what he says. And if Senator Adams' description is anywhere near correct, then I whole-heartedly agree with what he said in this case.

Senator COHEN. Well, I am pleased to have the words of Senator "McMitchell" today. [Laughter.]

Chairman GLENN. Gentlemen, thank you. We may wish to have additional questions submitted to you. We hope you would answer expeditiously so that could be included in the record, questions from other Committee members, or we may want to submit them on behalf of the Full Committee.

Thank you very much for being here today.

Chairman GLENN. Our next witness is Dr. J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response, U.S. Environmental Protection Agency.

Mr. Porter, welcome to our hearing, and if you would introduce your colleagues to us, please.

TESTIMONY OF J. WINSTON PORTER, PH.D., ASSISTANT ADMINISTRATOR FOR SOLID WASTE AND EMERGENCY RESPONSE, U.S. ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY GENE LUCERO, DIRECTOR, OFFICE OF WASTE PROGRAMS ENFORCEMENT, LISA FRIEDMAN, ASSOCIATE GENERAL COUNSEL, AND JACK LEHMAN, DEPUTY DIRECTOR OF THE OFFICE OF MUNICIPAL POLLUTION CONTROL AND FORMER DIRECTOR, STUDY ON HIGH LEVEL MIXED WASTE AT DOE FACILITIES

Dr. PORTER. Mr. Chairman, I have with me today Gene Lucero, on my right, who is director of the Office of Waste Programs Enforcement in my office; to my extreme right is Lisa Friedman, who is an Associate General Counsel of EPA, and on my left is Jack Lehman, who directed a recent study on high-level mixed waste at DOE facilities.

Chairman GLENN. Proceed, please.

Dr. PORTER. Thank you, Mr. Chairman. It is good to be here today. I want to talk to you about this important subject from EPA's perspective as I am the National Program Manager for the RCRA and Superfund programs, which of course both have strong implications for DOE and other Federal facilities.

What I would like to do today is first to submit my written testimony for the record, and then I will just briefly summarize my testimony.[1]

Chairman GLENN. Your entire statement will be included without objection.

Dr. PORTER. I would like to briefly talk about RCRA and Superfund as they relate to DOE facilities, and then summarize with some near-term actions which we are trying to accomplish to improve environmental compliance at DOE facilities.

First, RCRA as indicated this morning, has a permitting program that applies to everyone, including Federal facilities. These permits are required to operate treatment, storage or disposal facilities at Federal and other facilities.

A very important aspect of that permitting program relates to the corrective action provisions. RCRA requires corrective action for releases of hazardous wastes or constituents from any solid waste management unit at a treatment, storage or disposal facility that is seeking an RCRA permit. So there are really two ways you can approach DOE facilities, through both RCRA and Superfund.

The permits are very important, and we are working on a number of them now. The first statutory deadline is for RCRA land disposal permits which are due in November of 1988. Incinerator permits are due in November 1989 and other treatment and storage facilities in November 1992. And we are working diligently with the States to try to meet those permitting deadlines.

It is very important that we understand permitting is conducted in partnership with the States. Most of the permits are in fact joint permits where the authorized States under RCRA—and about 42 States are authorized—handle the base program under RCRA. The EPA, on the other hand, is handling the hazardous waste amendments of 1984 portion, which includes corrective action and other requirements.

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[1] See p. 136.

I want to mention two other brief points under RCRA to set some of the framework for our discussion.

We are very busy trying to authorize States to handle mixed wastes under RCRA. We have talked a lot today about mixed radioactive and hazardous waste, and last summer a policy statement was published which indicated we would like to authorize States as soon as possible to regulate mixed waste under RCRA. The State of Colorado came forward very quickly, and I will explain this in greater detail later. Authorization was very helpful in an action they have been able to take. Other States are beginning to seek authorization also.

The other thing I want to mention also briefly has to do with mixed waste, because as was indicated, many of the waste problems at these facilities are mixed radioactive and hazardous waste.

Jack Lehman, to my left, as I indicated recently directed a study for us in which he visited 10 major Federal facilities or DOE facilities to look at how high-level mixed waste was being handled. The DOE actually asked us to take a look at how we thought RCRA ought to apply to high-level mixed waste.

And I think it is fair to say—and we can flesh this out more in questions if you like—is that we found at least in some of the newer aspects of DOE operations, that the practices were equal or superior to RCRA. On the other hand, we were quite concerned about some of the past practices, such as leaking tanks and other things that have been discussed this morning.

So, the bottom line is we do think that RCRA does have application to most forms of mixed waste, and we are going to study these facilities on a case-by-case basis to determine the exact application.

Let me briefly turn now, if I could, to Superfund, and then I will summarize both.

Section 120 of the new Superfund makes it clear that Federal facilities are covered to the extent of private facilities. It also sets forth a variety of schedules and requirements in terms of preliminary assessments studies of various types, and reviews of alternatives—all of these are associated with various schedules in the law.

The most important aspect though, for this morning's discussion has to do with the selection of a remedy for a Federal facility which is on the Superfund National Priorities List. Selection of remedy—that is, what actually is done for the cleanup—is a joint exercise between the Federal facility and the EPA, but EPA has the ultimate authority. If we do not agree with the remedy which has been selected by the Federal facility, then EPA can make the ultimate decision.

It is also important to point out that the State must be allowed to review the remedial investigation feasibility study as well as the remedy.

The other thing I would like to mention briefly under Superfund is that we are in the process of publishing a policy statement which says we intend to list all Federal facilities that score equal to or above 28.5 using our hazard ranking system with respect to being on the Superfund National Priorities List as Superfund sites even if they are so-called RCRA-related sites. Even if we can handle them largely under RCRA, we think the intent of the law was to list them on the Superfund list if they score above our number needed for ranking on the hazard ranking system.

That is a quick overview of RCRA and Superfund. Let me close by making a few observations on our current activities and where I think we ought to be heading as far as EPA is concerned.

First, as I have indicated, both RCRA and Superfund apply at Federal facilities. That is clear and we will go in that direction. My major priority with respect to DOE is to develop enforceable compliance agreements at all 13 major DOE facilities. These will be in various forms; they may not all come out exactly the same. But I think it is very important that we have enforceable compliance agreements at all 13 major facilities, including the ones that we have discussed this morning.

The Rocky Flats agreement in Colorado, which we consummated last fall, is being used as a model. It is an enforceable compliance agreement entered into by the State of Colorado, the Department of Energy and EPA. It requires wastestream characterization of all the various streams on the site. It applies both RCRA and CERCLA authorities as necessary. It contains a series of time schedules in terms of when activities have to be completed. Finally, and perhaps most importantly, it has provisions for citizen enforceability, so that a citizen could go into court and enforce the schedules and requirements in that agreement.

We are close to a similar agreement for the Idaho National Engineering Lab—I think that will be coming out in the next few weeks—and some of the others discussed this morning. We would like to revisit some of the other compliance agreements and negotiate similar enforceable agreements.

I am working closely with Assistant Secretary Mary Walker of DOE, from whom you will be hearing later this morning, to see if we can develop a schedule—and we will be happy to provide this to you—a schedule of reaching compliance agreements at all of these 13 facilities.

So I think in summary, I feel like we are making progress. This has been a very high priority of mine and will continue to be a very high priority. Frankly, I think we have to work the problem at all levels, at senior levels in Washington and also at the local level, and we will be working through each of these facilities as we go. It is going to be a bit of a top-down process, but I want to work very closely with the States and EPA regions as we proceed.

So that is my statement, Mr. Chairman, and I will be happy to entertain questions.

Chairman GLENN. Thank you, Dr. Porter.

Dr. Porter, do you believe you have the tools necessary to make DOE come into compliance right now? I know that is the Administration's position, but do you really believe you can do this just by trying to work out little agreements ahead of time? It has not worked up to now.

Dr. PORTER. Well, I think it is beginning to work. My answer is I think we do have the tools. I am not saying there are not some gaps we could talk about in terms of legislation.

Chairman GLENN. Talk to me about gaps, then.

Dr. PORTER. Okay. I think the important thing is to get people to the table. And what I have found to be very effective during my tenure is when we have a very aggressive State involved. For example, the State of Colorado moved very aggressively against DOE in terms of potentially dening some RCRA permits. I think that was very instrumental in getting DOE to the table. We then were able to develop an enforceable agreement.

Now, what I would like to do, frankly, is to continue finalizing enforceable compliance agreements for other facilities. If we can get agreements like we did at Rocky Flats at these other facilities, I think the system will work.

So I do not see any real large gaps, frankly. I think we will know more in a few months.

Chairman GLENN. I do not want to get into a big debate with you here this morning on that subject. But should handling of something like this, as important as it is, be left up to whether a State is aggressive or not aggressive, or whether they have experts in this field or do not have experts in this field?

Long ago we held at the Federal level control over nuclear matters for some very good reasons—what blows and flows across State lines; if you contaminate a waterway, it is not going to stay within a State boundary. So there are some good reasons why we kept preeminence over this matter here. And I just would question whether we should let our future policy just be dependent on who squeals the loudest in some States where they happen to have a couple of experts.

Shouldn't this be from a Federal level and enforce it?

Dr. PORTER. Well, I think it will be from a Federal level. Certainly, as I mentioned under Superfund, for example, EPA can actually select the remedy for cleanup at sites if we do not agree with the remedy selected by the Federal facility.

Secondly, as I said, what I am going to do is work through—and I am starting to do this—each one of these facilities in a very aggressive way, with schedules, in terms of getting these enforceable agreements.

Chairman GLENN. Is there any other function of Government anywhere that EPA does not have authority over? Are there exemptions given to other departments of Government that EPA cannot move in and take action against?

Isn't this the only one in all of Government?

Dr. PORTER. Well, I am not sure I would say that.

Chairman GLENN. Well, let us be sure of what you are saying, then—is it, or isn't it?

Dr. PORTER. I do not know that I would use the word "exemption." I think we can move on these facilities, and I think we are moving. I am not sure where the gap is from your standpoint.

Chairman GLENN. Well, isn't DOE the only entity of Government permitted to oversee itself in this critical area?

Dr. PORTER. I think that has historically been the case, yes. You are saying in the sense of DOD or Department of Transportation or other Federal agencies.

Chairman GLENN. Any other department of Government. I include them all.

Dr. PORTER. I am not aware of any.

Chairman GLENN. So this is the only exemption we make is in this particular area. I think that is a very key element here. I know we have to move along here.

Senator Cohen, go ahead.

Senator COHEN. Dr. Porter, I am unclear on what you had to say. Does RCRA apply to the Department of Energy?

Dr. PORTER. Yes, it does.

Senator COHEN. Am I correct that some nine out of the eleven facilities do not have RCRA permits?

Dr. PORTER. They do not have permits yet, but nor do a lot of other people. In other words, we have to write 400 land disposal permits in this country by November 1988. We have completed only about 30 or 40. But we think we will complete all of them by November 1988. So we are moving on Federal facilities as well as private facilities to get those permits written.

So when you say they do not have a permit, they have been in something called "interim status" under RCRA along with a lot of other people, and what we are doing now is moving toward that November 1988 deadline to write those permits.

Chairman GLENN. Senator Mitchell?

Senator MITCHELL. Thank you, Mr. Chairman.

I want to ask you about groundwater. A 1986 GAO report noted that DOE officials do not believe groundwater contamination poses a threat to public health for two reasons. First, it said the DOE sees little risk of migration offsite; second, that migrating contaminants are diluted.

The GAO then also noted, however, that there was contamination of hazardous and radioactive material at very high levels. The GAO cited, for example, at the South Carolina Fuel Fabrication Plant, TCE, trichloroethylene, a highly toxic solvent, was reported at levels 30,000 times higher than safe drinking water standards.

It also reported that at the Y-12 plant in Tennessee, mercury was found offsite at 2,000 times background level.

I would like to ask you does the EPA agree with the DOE that groundwater contamination is not a problem, or do you agree with the GAO that it is?

Dr. PORTER. I am not sure which one we agree with, but I will say we think it is a problem.

Senator MITCHELL. Then you agree with the GAO.

Dr. PORTER. I am not sure I agree on all those individual facts. But certainly, Senator Mitchell, we think when we look at the literally thousands of solid waste management units at these DOE facilities, some of which are leaking and some of which have the materials you indicated, we are very concerned about groundwater contamination.

Senator MITCHELL. Now, you stated very clearly that under RCRA, sovereign immunity does not apply and that DOE's contention that it has immunity from assessment of fees or penalties under State law is no longer applicable; is that correct?

Dr. PORTER. I am not sure I said that. I want to maybe get some help.

Senator MITCHELL. Well, then, I will ask you that.

Dr. PORTER. I may want to get some help from my legal counsel here, if you do not mind.

Lisa, do you want to respond?

Senator MITCHELL. All right.

Ms. FRIEDMAN. Yes. There is a waiver of sovereign immunity under RCRA which you are probably familiar with, and to the extent of that provision, the Government has waived sovereign immunity and must comply with RCRA requirements.

There is currently now some ongoing dispute in a number of court cases concerning whether States can assess penalties against Federal facilities, and the Justice Department in briefs filed in those cases, has taken the position that sovereign immunity under RCRA is not waived with respect to State-assessed penalties.

Senator MITCHELL. That is the Justice Department's position?

Ms. FRIEDMAN. Yes.

Senator MITCHELL. Has EPA taken a position on that?

Ms. FRIEDMAN. We have not taken any formal position.

Senator MITCHELL. Have you been asked to take a position?

Ms. FRIEDMAN. I am trying to remember. I do not think we have written any formal memos on the issue.

Senator MITCHELL. Well, then, let me get beyond that and say that I am asking you, EPA, to conduct its own analysis of Section 6002, its provisions and the legislative intent, and to advise this Committee of the opinion of EPA's counsel on that question, whether or not the waiver of sovereign immunity extends to State laws, or whether it is limited as the Justice Department argues to other Federal agencies.

I would appreciate it if you would provide us that opinion of the EPA in writing at your earliest convenience, consistent with a thorough review.

Ms. FRIEDMAN. We will, Senator.

Senator MITCHELL. All right.

Mr. Chairman, thank you very much.

Chairman GLENN. Senator Sasser.

Senator SASSER. Thank you, Mr. Chairman. I have no questions of this panel.

Chairman GLENN. Senator Adams?

Senator ADAMS. Mr. Chairman, I have just one question, but I would like permission to enter some written questions to this witness and to the next witness, if I could.

Chairman GLENN. Fine.

Senator ADAMS. I want to follow up on Senator Mitchell's question, because you indicated that the Justice Department had given a memorandum on RCRA authority; but what about the EPA RCRA authority? What is the status of the Justice Department memorandum on your authority to enforce?

Ms. FRIEDMAN. I am not exactly sure what memorandum you are referring to. Are you talking about the briefs that have been filed in these cases?

Senator ADAMS. No; their internal memoranda to you, following up on Senator Mitchell's questions, of the position that this Administration is taking within its various administrative portions as to whether or not you have the authority to take compliance action against this Federal agency.

Ms. FRIEDMAN. Our legal position is that we have authority to issue injunctive administrative orders against Federal facilities.

Senator **Adams**. Against these DOE facilities?

Ms. **Friedman**. Yes. Now, there are some Federal agencies that dispute that authority, and rather than spending a lot of time haggling about the legal issue, what we have been engaged in is a process which Dr. Porter has described a little bit, to try and develop a process whereby we can negotiate compliance agreements with Federal facilities that are enforceable by citizens and States.

Senator **Adams**. What I am concerned about is the question still has not been answered. You have indicated that certain agencies resist this, and I am asking you just about DOE because that is what we are dealing with this morning.

Has there been an understanding reached, or is this agency still resisting the EPA authority to carry out RCRA under its authority, and the other environmental statutes over which you have jurisdiction?

Mr. **Lucero**. Senator, if I might, my name is Gene Lucero, and I have been involved in this particular issue. It actually arose in the context of the Rocky Flats negotiations as to whether or not the final agreement would be embodied as a compliance agreement or whether it would be embodied as a consent order.

It was at that point that the issue was raised by the Department of Energy as to whether or not EPA could issue an order, an administrative injunctive order against another Federal agency.

That issue is still under discussion within the Administration. And as Ms. Friedman indicated, what has been underway at the same time is looking at other alternatives rather than to force that issue.

That is where it stands at the moment. There is a dispute within the Administration.

Senator **Adams**. That is what I was asking about. And it is my understanding that the draft memorandum of understanding that was submitted after the discussions by DOJ, DOE, and EPA, that draft memorandum if adopted makes you virtually powerless to move against DOE; is that not correct?

Dr. **Porter**. No, I would not say that. I think the draft agreement I believe you are referring to, which is just that, a draft, embodies the same sort of things we obtained at Rocky Flats—namely, a process which we can go through and develop these agreements and the very important aspect of enforceability by citizens and States.

It does perhaps finesse the issue a little bit with respect to EPA's authority.

Senator **Adams**. That is what I—we have discussed the State authority. And the memorandum I am referring to is the one, Mr. Lucero to Basil Constandelos and Charles Findlay and Patrick Tobin, January 23, 1987.

Dr. **Porter**. That is it.

Senator **Adams**. And that is the one that basically puts you out of the enforcement game.

Dr. **Porter**. Well, let me say also, Senator Adams, that we at EPA—and we will be happy to develop this more in the legal brief that Senator Mitchell has asked for—we have not indicated or acquiesced in the fact that we cannot issue orders.

What we have, frankly, is a dispute within the Executive Branch. In order to keep things moving while that gets settled, we want to move forward and develop agreements which are enforceable by citizens and States, to get facilities cleaned up.

My job is to get these facilities cleaned up, and while this debate continues, I want to keep moving with respect to these kinds of agreements.

But frankly, I think that the Rocky Flats type agreement really has what we want in it. It has virtually everything we would have in an order. So it is kind of what you put at the top of the page—"order" or "agreement" so to speak.

Senator ADAMS. Mr. Porter, this goes again to the fundamental question that Senator Cohen raised and that I had raised before, which is that DOE appears both from the memoranda, from the testimony we have heard from the State people, what GAO says, drags its feet on this waste issue and the environmental protections that are involved. And what we have been inquiring about, several of us, as this has gone on, is that this is their record, and we are concerned whether this Congress should be taking some action to put either you or the Nuclear Regulatory Commission or somebody else in either an oversight or in charge of this activity, because we do not have any confidence.

Now, I am trying—and Senator Mitchell's question went to the same thing—to determine how you are getting along, and it does not sound to be very well. And I am dragging pretty hard here to find out what is happening in these memoranda, but I understand you are being told, "No, you are not going to be in the act." And if so, we may want to put you in there.

Now, do you understand? I am trying to be just as precise as I can as to what the problem is.

Dr. PORTER. Yes, sir, I understand. I would just encourage you, and we would be happy to brief you and your staff in as much detail as necessary, to look at the Rocky Flats agreement which we are going to try to develop with other facilities. We at EPA think that is a very good arrangement, and I think we would have to get the details for you to see if you agree. But we are not uninterested in discussing other ways to get at it.

I am finding, frankly, with respect to Federal facilities that it is tough. I am having to really stay at the jugular on this, because there are large bureaucracies where there has been a history of past mismanagement, and we intend to go after them very hard under the authorities we have.

I think we are getting there, frankly, and saying is in the next few months, I think you will see a lot of action.

Senator ADAMS. Thank you, Mr. Chairman. I would like to submit questions in writing.

Chairman GLENN. Fine. Very good. Just in response, I would say that past records indicate that this cooperative approach with DOE has flat not worked. That is not just a criticism of this Administration; it goes way, way back. These problems have been developing over the last 20 years or so, now that we have known enough about them to look at them, and it flat has not worked.

Dr. PORTER. Well, Senator——

Chairman GLENN. Let me just ask, do you think you have the tools necessary right now to bring DOE into compliance?

Dr. PORTER. Yes, I do.

Chairman GLENN. Well, how on earth can you say that? Why aren't we in compliance, then?

Dr. PORTER. We have a long way to go.

Chairman GLENN. You sure as the devil do.

Dr. PORTER. Well, we have a long way to go technically. In other words, you heard of the problems earlier. We have maybe 500 solid waste management units at the Hanford reservation. We have several hundred at Fernald. We have quite a few in total for all DOE facilities. We are trying to press forward on overall arrangements, enforceable arrangements at these sites to define the problem, because frankly it is very hard to attack this.

I do not want just a piecemeal approach.

Chairman GLENN. I agree to that. But your organization has the authority to go into any function of Government and enforce the law, except DOE on the mixed waste. And their record in cleaning up and in making their functions safe and in making sure that we have a cleanup and a plan for it and money asked for for it and budgeting for it has been nonexistent practically.

They have only moved very recently, after some of us here pushed very hard. Now, I do not know why in your responsibility, in your area, you would want to have one function of Government completely out there all on their own, when it is so important. Why don't we have the same law apply to all functions of Government? I just do not see what the rationale is for not doing that. Can you tell me what the rationale is—except that the Administration just flat does not want to do it?

Dr. PORTER. No, we do want to do it.

Chairman GLENN. Then you want it law? You want a law giving you authority?

Dr. PORTER. Well, Senator, you know——

Chairman GLENN. You do want a law giving you authority?

Dr. PORTER. You would have to look at the Atomic Energy Act——

Chairman GLENN. Wait a minute. Do you want a law giving you authority?

Dr. PORTER. I think we have enough authority right now. I am willing to talk to you about it, and I would like to see the specifics of what you are proposing.

But the Atomic Energy Act gives certain authorities, you know, to the Department of Energy. We are trying to work in that context, and I think we have made some real progress. I have been saying consistently, for at least six months to a year, that mixed waste or anything that has a RCRA component is subject to RCRA—I think that is beginning to happen with respect to DOE. There has been a big debate about that, but I think we are getting there.

Chairman GLENN. Okay. What we are up against here, though, is we are up against the changing personalities from one Administration to another. You may be very aggressive in this area; the next person who comes into your spot may have some direction from on-high hinted to him, "Sort of let this thing ride, will you?" and so they let it ride. So the problem gets worse instead of better.

What we are charged with in our function in Government is trying to set this up as a Government of laws so we have a certain steadiness, a certain continuity here, of what is required by law for people to live up to, and it is up to you to administer it.

But we do not like to leave this up to personalities from time to time, and that is what we are faced with and have been faced with through past administrations and this one, too.

Dr. PORTER. Yes. Senator, I might say that this draft agreement that Senator Adams alluded to would formalize the process, and we would be happy to work with you on that. It is not something that is just going to be a whim of my personality or somebody else's.

But let me also indicate that we are certainly willing to talk to you about legislation. We are not saying there are not some issues here; we would like to see what you are proposing, and we will certainly work with you on it.

Senator MITCHELL. Mr. Chairman, may I?

Chairman GLENN. Yes, Senator Mitchell.

Senator MITCHELL. My earlier line of inquiry was on the question where there is an acknowledged dispute, whether or not the waiver of immunity extends to State law.

Dr. PORTER. Yes, sir.

Senator MITCHELL. Do I gather from the subsequent questioning that there is any remaining dispute that the waiver of immunity extends to Federal law and to RCRA? Does the DOE take a position to the contrary on that point?

Dr. PORTER. No. In terms of whether RCRA applies or not?

Senator MITCHELL. Yes.

Dr. PORTER. No. I think they agree with that, and the *LEAF* v. *Hodel* decision made that very clear.

Senator MITCHELL. There is no doubt about that.

Dr. PORTER. No, none.

Senator MITCHELL. That law is very clear as to any material which falls within RCRA, there is a waiver of immunity, and you have the authority to enforce the law.

Then, what is the problem with reaching an agreement?

Mr. LUCERO. Well, you have sort of hit the issue at the top. The big issue in 1983 was whether RCRA applied to DOE.

Senator MITCHELL. Yes.

Mr. LUCERO. We are beyond that. Now we are into the question of wheher the substances that may be of concern are regulated under the Atomic Energy Act as byproduct, special nuclear or source material, or are they mixed waste that they are subject to RCRA.

There is still a fair degree of discussion on that issue, and there are problems because the law does not give much guidance. There are some policy concerns and I am sure you will hear from the Department of Energy about how that line should be drawn.

That discussion has hampered arriving at agreements at a number of facilities. The way we broke through that issue at Rocky Flats was to say we are just not going to decide the issue generically; we want you to test everything, and then we will make a case-by-case decision.

But that basic discussion hampers resolution at other facilities at this moment—is it mixed waste subject to RCRA or is it byproduct or some other material subject to the AEA.

There is a great deal of discussion about mixed waste being subject to RCRA, and there are concerns about what happens if it goes within the RCRA system.

So the issue is no longer does RCRA apply; it is how much material processes are subject to RCRA. It is a different discussion now.

Senator MITCHELL. Well, one of the problems we have had in the past seven years has been that Congress has been forced to micromanage in the environmental area. The Administration's foot-dragging, obstructionism, unwillingness to enforce the law has led to what is not a healthy legislative situation, but one which the Congress has determined it is required that we have gone in and written into law things that, if the Administration really believed in enforcing the laws, would better be left to the discretion of the Executive Branch. You had to do it for the reasons I have stated.

My question to you now is—and I know this is a difficult one for you to answer—but is this a good faith dispute over the proper legislative scope, or are we now in another area of attempting to circumvent the intent of Congress in the environmental area by obstructionism, definition, things of that type?

In other words, do we now have to pass a law resolving the issue that is causing this delay? The intent of Congress in Section 6002 could not possibly be more clear, in my judgment.

Dr. PORTER. Senator, I think that we are getting there. In other words, as Gene indicated, there has been some debate. The Atomic Energy Act, states RCRA does not apply to source, special nuclear, or byproduct materials. That language is in the Atomic Energy Act, and we are a Government of laws, as Senator Glenn indicated, so we have to worry about the Atomic Energy Act as well as RCRA.

But what I have been saying consistently, and I believe it is beginning to play out in real settlements with the Department of Energy, is where there is a RCRA component, we are going to apply RCRA. There are some inconsistency waivers in RCRA that allow us to waive requirements that may be dangerous in terms of exposure for example. In some instances you simply have to think about the Atomic Energy Act, which deals with radiation, and RCRA, which deals with hazardous waste, and decide which course of action to follow. Some things are mutually exclusive. The Atomic Energy Act talks about not opening drums and barrels at a disposal site, because you may over-expose someone with the radiation. RCRA talks about opening the drum, analyzing it and so forth. So we have some technical issues to work out. I want to go case-by-case through each DOE facility and initially—there are only 13 of these land disposal facilities. We have Rocky Flats behind us and we nearly have Idaho National Engineering Labs behind us. I don't think we need esoteric discussion about what a mixed waste is forever. Instead I think we need to go ahead and develop enforceable agreements at each of these 13 sites. As Gene indicated, we are doing it on a stream by stream basis. We are saying how we will apply the Atomic Energy Act or RCRA to this site and what makes sense from a human health and environment standpoint. And it takes some judgment as you work through these streams. Is the major danger radiation? Is the major danger solvents?

Senator **MITCHELL**. Well, if we had any confidence but for the record of the past several years, I could accept that, and it may be, of course, correct in this case. I misspoke. It is Section 6001. But I ask you the question, Mr. Lucero, and I would like your answer.

Mr. **LUCERO**. Which question, sir?

Senator **MITCHELL**. The question that Dr. Porter just answered, which I address to you. I want your answer. In your judgment, is this a good faith, genuine dispute over the reach of this section, or is this another example of foot-dragging, delay, obstructionism, by an Administration unwilling to enforce environmental laws?

Mr. **LUCERO**. Well, as is the situation with all large organizations, I think there are disagreements that arise at different facilities. And I would have to say that at some facilities, the question of whether or not they are subject to RCRA has indeed been a matter where there is some question on our part of their good faith.

I think that is a major issue, for example, at Hanford. And as a result there has not been much progress made. There is a great deal of distrust on the part of the regulatory agencies, both of EPA and the State, that the Hanford facility is not making a good faith effort to try to resolve this.

There are people in the Department of Energy that are working very hard. Mary Walker's office has been set up and has dedicated staff that are trying to solve these problems. But there is a long history, with people who have other responsibilities and did not see the protection of the environment as one of their highest priorities.

So for that reason, there are some facilities that we are trying to deal with where we have to break through this particular problem. And unfortunately to the extent that we are not moving fast enough, and Congress is concerned about it, you now know what our problem is.

Senator **MITCHELL**. Mr. Chairman, thank you.

Chairman **GLENN**. Thank you, Senator Mitchell.

I have no additional questions at this time, and we have one more witness this morning. We thank you for being here. We may be giving you more authority than you want in this Administration, with the legislation we are proposing, but I think what we are probably going to come out of these hearings with are some recommendations that I think will give EPA across-the-board authority where I think it should have been all along.

Dr. **PORTER**. We will be happy to talk to you about that.

Chairman **GLENN**. Yes, we will be glad to discuss it.

Dr. **PORTER**. Thank you.

Chairman **GLENN**. Thank you all very much.

Our next witness is Mary Walker, who was with us last week, also. She is Assistant Secretary for Environmental Safety and Public Health, U.S. Department of Energy.

Ms. Walker, welcome to our hearing again this morning. We have your statement here. If you care to give a summary of it, fine, or the whole statement if you want to; in any event, it will be included in the record in its entirety.[1]

Perhaps you can introduce the other gentlemen at the table with you, your colleagues.

TESTIMONY OF MARY L. WALKER, ASSISTANT SECRETARY FOR ENVIRONMENT, SAFETY AND PUBLIC HEALTH, U.S. DEPARTMENT OF ENERGY, ACCOMPANIED BY DON OFTE, PRINCIPAL DEPUTY ASSISTANT SECRETARY FOR DEFENSE PROGRAMS; MICHAEL LAWRENCE, MANAGER, RICHLAND OPERATIONS OFFICE; JOE LAGRONE, MANAGER, OAK RIDGE OPERATIONS OFFICE; ROBERT MORGAN, MANAGER, SAVANNAH RIVER OPERATIONS OFFICE; AND RAY BERUBE, ACTING DIRECTOR, OFFICE OF ENVIRONMENTAL GUIDANCE AND COMPLIANCE

Ms. **Walker**. Thank you, Mr. Chairman, Members of the Committee, and thank you for this opportunity to testify before you on behalf of the Department of Energy's Environmental Protection Program.

Accompanying me today are: Don Ofte, Principal Deputy Assistant Secretary for Defense Programs; Mike Lawrence, Manager of the Operations Office at Richland; Joe LaGrone, Manager of the Oak Ridge Operations Office; Robert Morgan, Manager of the Savannah River Operations Office; and Ray Berube, Acting Director of the Office of Environmental Guidance and Compliance in my office.

Chairman **Glenn**. Good. Welcome to all of you.

Ms. **Walker**. Today I would like to discuss the Department's overall efforts to address environmental problems at our facilities. I would like also to highlight some specific efforts we are making at those sites of particular interest to you in this Committee.

I would like to provide you with some additional information that is not in my prepared testimony, and in that regard I would ask the Committee for a few additional minutes to give you what I think is some critical information beyond that which you might have originally thought.

Chairman **Glenn**. Surely.

Ms. **Walker**. I will not attempt to give you the details of the prepared testimony, which you already have.

As I discussed more fully at the March 12 hearing on reactor safety before this Committee, when Secretary Herrington came to the Department two years ago, he recognized there was a problem, and he took significant action to considerably change and strengthen the Department's environment safety and health functions. I will not repeat a description of those initiatives today, except to indicate that in the environmental area, the most important two were the environmental survey and his environmental policy statement adopted first in January of 1986.

The latter statement, which states, "It is the Department's policy to conduct our operations in compliance with both the letter and the spirit of environmental laws and regulations," has significantly changed the way decisions are made today at the Department of

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[1] See p. 155.

Energy and the emphasis placed on resolving the environmental problems at our facilities.

In order to define the scope of the problems and address them in a more comprehensive manner, the Department has identified and put into place certain tools—seven, to be precise.

The first of these is the environmental survey that I mentioned. This survey, which began almost a year ago, with the Fernald facility, will identify existing environmental problems and areas of potential risk and prioritize them Department-wide for corrective action. It will in fact lead to the comprehensive plan after it is completed in fiscal 1989.

The survey activities are expected to be completed, as I indicated, in that year. It will cover all sites, all media—that is, air, water, soil—and will cover all areas of environmental regulation, all environmental statutes. The result will enable the long-range planning I know you desire.

We have completed the onsite activities for the survey at Fernald, Mound, Hanford, Rocky Flat, Portsmouth, Pantex, Oak Ridge, Y-12 plant, the Lawrence Livermore National Laboratory, Sandia National Laboratory, the Livermore site, and Savannah River.

We picked the toughest facilities first. We picked the critical defense facilities because we knew that is where the majority of problems were. We wanted to have that information up front.

The second tool is the Department's CERCLA program. We have been showing good progress, I believe, under a multiyear program that covers inactive waste sites and spill or leak areas.

We have identified through this program a thousand potential CERCLA sites and preliminary assessments on them are completed or underway. We have identified an additional 700 spill or leak areas that are currently being evaluated as potential CERCLA sites. These results will also provide input for long-range planning for the Department to correct these problems.

A third tool is enhanced guidance in the area of RCRA and CERCLA. We are revising the Department's RCRA order, the Superfund order, and have provided interim policy on State regulation of mixed waste and offsite disposal of hazardous waste. We have also provided interim guidance on section 3004(u) of RCRA, and we have already provided guidance and a workshop on the new SARA or Superfund reauthorization.

The fourth tool was something created with a new organization under Secretary Herrington's initiative, and that is the field coordinators in my office. Eight field coordinators specifically designated to be a resource to the field offices and to be a chain of communication for them to identify unresolved environmental issues and to work with the Federal and State agencies to resolve these issues and move forward.

In addition, these field coordinators have begun a special study on groundwater contamination at my request so that we can get a more comprehensive look at what needs to be done and plan for the future in accordance with our commitment to do so.

The fifth tool, already discussed today before you, is the Federal Facility Compliance Agreement. I believe the Department is making significant progress in attaining the goals embodied in the

Secretary's environmental policy in this regard. An important indicator of this is the progress we have made and the successful efforts we are achieving in working cooperatively with EPA and the States towards achieving compliance with environmental requirements.

Over the last 12 months, we have entered into 12 formal written agreements with EPA or the States on measures to correct deficiencies in complying with these requirements. The Federal Facilities Compliance Agreements we have entered into with EPA in 1986—there were several before—include Rocky Flats, Weldon Spring, Fernald—at which the State was invited to join, but they declined—Portsmouth—and we certainly invite the State to participate in this one—and Savannah River.

The Federal Facilities Compliance Agreements that are now pending—that is to say, we hope to conclude soon—involve Idaho, where a technical agreement has been reached; Savannah River, on RCRA; Hanford, on RCRA; it has been negotiated with the State, and we are waiting for EPA to join; Brookhaven National Laboratory, Rocky Flats, Lawrence Livermore for FSCA, and Portsmouth, for CERCLA.

Other high-priority Federal Facilities Compliance Agreements that we will be seeking in this coming year pertain to Lawrence Livermore National Laboratory for RCRA, the Paducah Gaseous Diffusion Plant for RCRA; Hanford, for RCRA, where we already have an agreement with the State; Savannah River, for RCRA; Nevada Test Site, for RCRA; and the Lawrence Livermore National Laboratory, for CERCLA.

Another initiative that we have undertaken is to invite the Environmental Protection Agency to review with us all of our waste-handling activities concerning high-level and transuranic waste. This initiative was generated as a result of the policy review of the byproduct issue conducted by my office. And through this effort, a joint working group convened by the Department of Energy and EPA reviewed the management of high-level waste and transuranic waste practices at ten different DOE sites including Savannah River, WIPP, Rocky Flats, Idaho, Hanford, West Valley, Los Alamos, Nevada Test Site, Lawrence Livermore National Laboratory, and the Oak Ridge National Laboratory.

The seventh tool is a joint effort between the Department and EPA in which we are participating with them in their Superfund innovative technology evaluation in order to develop and demonstrate technologies to treat hazardous waste in the soil and groundwater.

I know this is an issue that is important to you, Mr. Chairman, and in addition I would like to advise you that the Department itself is working to develop ways to treat and dispose of radioactive and mixed wastes that are environmentally sound and state-of-the-art. And I cite the tritium research ongoing at Savannah River and certain other items that the operations managers can discuss in more detail for you today.

We have made specific progress at many of our sites in the last year, and I do not just mean studies, although those are important, but actual hardware installed to correct deficiencies in monitoring and other things of the past. I will not highlight them all for you today; I will not even go into the detail that is in my testimony. But I would like to mention as to the facilities you discussed here this morning a few items.

At Fernald, in addition to the agreement we have entered into with EPA, we are still trying to and hope to work with Ohio and the Attorney General's Office to resolve outstanding issues with a consent decree, but we believe we are working well with Ohio EPA, and we believe that we have established a comprehensive air pollution control program; we have completed an investigation of uranium contamination in groundwater and partial implementation of related control measures. We have completed a detailed radiation survey in order to identify areas of radioactive surface contamination. We have completed a study of the chemical storage tank farm and implemented certain corrective measures thus far.

We have also installed dome covers on the K–65 silos.

At Portsmouth, in addition to completing the Federal Facility Compliance Agreement with EPA on RCRA, we have installed 56 new groundwater monitoring wells. We have initiated a study to determine the sources and extent of groundwater contamination. We have initiated actions to install four additional air monitors and initiated construction of a production-scale biodenitrification facility.

At Mound, we have continued monitoring the concentration of tritium in the aquifer, and we have conducted remedial pumping as necessary to keep the concentration within EPA's drinking water standard for tritium. We have initiated a geohydrological investigation of the aquifer in the vicinity of Mound in order to establish a groundwater monitoring system to identify and correct the sources of groundwater contamination.

Recent indications of volatile organic contamination as well as the tritium contamination are also being addressed by the Department under an ongoing effort under Superfund; and we have continued monitoring of offsite residual deposits of plutonium.

At Hanford in the State of Washington, we have prepared a plan for submittal to the Congress on the elimination of the use of soil columns at Hanford. We have installed 41 new groundwater monitoring wells under RCRA, and we are closing several impoundments known to have leaked wastewater under RCRA closure requirements.

We have an ongoing effort under Superfund to characterize all past disposal sites and other areas that have the potential for releases of hazardous substances. We are preparing a comprehensive list of waste management units which we expect to complete this May, and in conjunction with information from our efforts under Superfund, will provide a sound basis for the Department, EPA and the State of Washington to cooperatively plan needed remedial actions.

In South Carolina at the Savannah River plant, we have increased our efforts to define the extent of groundwater contamination by installing many more wells and sampling for more hazardous constituents than we have in the past. We have continued operation of a production-scale air stripper to remove volatile organics from the groundwater. We have initiated actions to close several seepage basins pursuant to RCRA requirements and replace them with treatment facilities prior to November of 1988.

We are preparing an environmental impact statement to evaluate options available for mitigating thermal effluents as well as to evaluate options available for protection of groundwater as related to waste management practices.

A number of negotiated consent orders and settlement agreements have also been entered into with the State of South Carolina to resolve outstanding environmental issues.

In addition to specific measures at our sites, an important regulatory issue I know to this Committee is the byproduct matter and that exemption under RCRA. As a result of the policy review began last spring by my office, the Department has decided not to adopt the previously proposed byproduct rule.

In conclusion, while we believe we are making progress in meeting the Department's environmental obligations, we also recognize there are many problems still to be corrected. However, we believe we are turning the corner and are now on a course which will lead to the Department becoming a model good neighbor. This course is not an easy, quick or inexpensive one. It will be difficult; it will take years, and it will be expensive to bring up to today's environmental standards hundreds of facilities, many of which were built two, three and four decades ago.

Secretary Herrington inherited a legacy of problems, but he is committed to bequeathing a legacy of solutions. We look forward to your support in this important effort.

I thank the Committee for your patience and would be happy to answer any of your questions.

Thank you.

Chairman **GLENN**. Thank you very much. And we do want to cooperate in this area. It is too important for it to become a political football.

Senator Sasser will start us off; we will go reverse order this round.

Senator **SASSER**. All right. Thank you very much, Mr. Chairman. I appreciate your doing that.

Ms. Walker, the Y-12 facility in Oak Ridge, Tennessee has had dangerous levels of mercury contamination—about 2,000 times beyond what is considered normal. It has migrated into the Oak Ridge ground water, and this has created a very significant pollution problem at Oak Ridge, Tennessee.

Would you bring the Committee up-to-date on the process of cleanup and what DOE is doing about meeting the environmental standards there in Oak Ridge with regard to the problem at Y-12?

Ms. **WALKER**. I will do so generally, and then I would like for Joe LaGrone, the Operations Manager there, to elaborate more fully.

As I indicated, we have completed a project to reduce the level of mercury at the civic center, where mercury-contaminated soil from Y-12 was used for construction. I believe Mr. LaGrone can describe the elements of that and other related actions more fully.

Senator **SASSER**. Fine.

Mr. **LAGRONE**. Senator, about four years ago next month, I came to Oak Ridge from California, and in May of 1983 made the announcement that there had been substantial amounts of mercury released to the environment, ground, some to the air and to the water. This occurred in the fifties and sixties when mercury was being used as a separating agent in developing lithium, which was needed for thermonuclear weapons.

The total amount of mercury onsite that we estimate that was released was about 200,000 pounds. It found its way into a small creek called East Fork Poplar Creek. Mercury was removed from the floodplains for various city-type construction projects. The sites around town at the schools and so forth, we have cleaned up and taken remedial actions.

I immediately moved to consummate an agreement with TVA, the Environmental Protection Agency, the State of Tennessee, USGS, and others, to begin a comprehensive look at East Fork Poplar Creek to see what was needed to fix the problems.

We have identified some problems. However, it is not in the drinking water of Oak Ridge, Tennessee. Let me clarify that. We take our drinking water above where this particular creek originates.

I took the mercury as a signal that there were other things that needed to be fixed at Oak Ridge. We have moved aggressively, first of all, to work with EPA in Region IV and with the State of Tennessee Department of Health.

I made a commitment in 1983 to take every plant for which Oak Ridge was responsible, including Portsmouth, Fernald, Paducah, Kentucky, the three plants in Oak Ridge, the Oak Ridge Gaseous Diffusion Plant, the Oak Ridge National Laboratory, the Y-12 Nuclear Weapons Plant, and to methodically go through those plants and try to unearth problems from the past that would require remedial action, current practices that needed to be changed as they relate to the environment, and made commitments to try to improve things for worker safety and health.

We have used what we have done in Tennessee as pretty much the model and the approach. Now, it has been four years in the making.

Senator SASSER. Is that the so-called "Oak Ridge Model"?

Mr. LAGRONE. That is another subject that I can touch on, but it relates to this whole issue of, quote, "handling of waste."

Senator, the thing we have tried to do there is to change attitudes. For example, we have tried to take away the mystique about the facilities. We have Q-cleared people from EPA and the State of Tennessee and have extended the same offers into Ohio, where people can come behind the fence and do their inspections. We have made information available to the public and set up public reading rooms. We have set up advisory committees for all of those facilities made up of lawyers, scientists, ordinary citizens, university professors, and so forth, to provide input to our contractors on ways they can better improve programs.

We have at the Y-12 plant focused on offsite water problems, and yes, it is a problem in East Fork Poplar Creek, and it was a problem in the Bear Creek, which was on the west end of the plant. We have done a lot of studies, but we have also made a lot of changes. Let me just mention a couple of those, if I may.

We completed on a crash basis a central pollution control facility for the Y-12 plant, brought it in ahead of schedule and under budget, I believe, this facility takes out a substantial amount of the material that was going out of the plant to the Bear Creek Valley.

We closed the infamous S-3 ponds, which were a major polluter of nitrates and heavy metals to the Bear Creek Valley. The water quality there has gone up dramatically, and I think if you talk to the people in Tennessee, the State or EPA Region IV, they will confirm that. We have a massive West End facility project under construction now to further treat the waste at the west end of the Y-12 plant.

In the Y-12, Gaseous Diffusion Plant and the Oak Ridge National Lab areas, we have drilled over 700 wells just to monitor the water and know what is there.

We have improved the air monitoring, the scrubbers on stacks of some 16 installations at the Y-12 plant, and that totals about 80-something buildings. We have implemented some ALARA programs there, or "as low as reasonably achievable," and I can submit that information for the record.

[The information referred to follows:]

Examples in which active ALARA program has reduced uranium exposure potential at the Y-12 Plant:

Skin.—38% to 41% skin exposures in Depleted Uranium Foundary Operations.

Air.—19% reduction airborne uranium concentration in O-wing Enriched Uranium Hydroform area;

30% reduction airborne uranium concentration in Building 9212, B-1 wing denitrator area;

20% reduction in airborne uranium concentration in Building 9212, E-wing casting basement area.

Trackout.—Smear reduction of 80% in Building 9212 office corridors—corridors are now clean area.

Mr. LaGrone. We have done something else. Waste will always be generated, but we have tried to look at it from the standpoint of okay, how do we make less of this waste. We have, I think, a very successful waste minimization program underway in Oak Ridge. Last year, we achieved at 20 percent reduction at the Oak Ridge National Laboratory alone. This year, the target is 30 percent at the Y-12 plant. How are we doing that?

We are charging back to people who generate the waste, so they have a dollar incentive to reduce it. We are using award fee criteria to influence waste reduction.

The division managers at the Y-12 plant have as a part of their personnel appraisal criterion that says you have to show and demonstrate what you have done to reduce waste.

There are some other things we have done. We have addressed the matter of environmental compliance through the award fee. At Martin Marietta Energy Systems, which is the current operator—they succeeded Union Carbide, which was there about 40 years under a cost-plus fixed fee arrangement—we have made substantial dollar reductions directly attributable to noncompliance or not coming into compliance on environmental matters.

On the point of compliance, Senator, I would just make one observation. I started the policy in Tennessee and I continued that in Ohio. I recognize there are legal arguments between what applies and what does not apply, and who has supremacy. I am not a lawyer. I consider myself to be two things—a manager and a leader. And I have taken the position that we are going to fix the problems and let the lawyers fight about who controls or not. And that is the direction that we are on today and I intend to stay.

We have put substantial resources in the contractor organizations. At Y-12, for example, when I got there, there were 56 people working on environmental problems and safety-related problems in a plant that employs about 7,100 to 7,200 people. There are now 186 people working on these types of problems directly.

The budget was about $25 million for those type of things in 1983; today at Y-12, the budget is about $85 million we have requested in 1988. Our budget for this year is $93 million. That indicates that some of the line items that we have brought on have been completed.

Overall, in Oak Ridge alone, we have already put about $480 million in expenditures since 1983 into fixes and cleanups.

Senator, you asked about the Oak Ridge Model. I would like to submit for the record, rather than talk about it in detail, something that we have developed out of these experiences that we are using to work with the private sector, to work with the universities and the public, with the regulatory bodies, EPA and the States, which is a comprehensive look at ways of managing waste—hazardous waste, low-level radioactive waste. And basically, what it deals with is better ways to handle, store and process waste. It also deals with ways of minimizing waste.

[The information referred to follows:]

WASTE MANAGEMENT
TECHNOLOGY
Oak Ridge, Tennessee

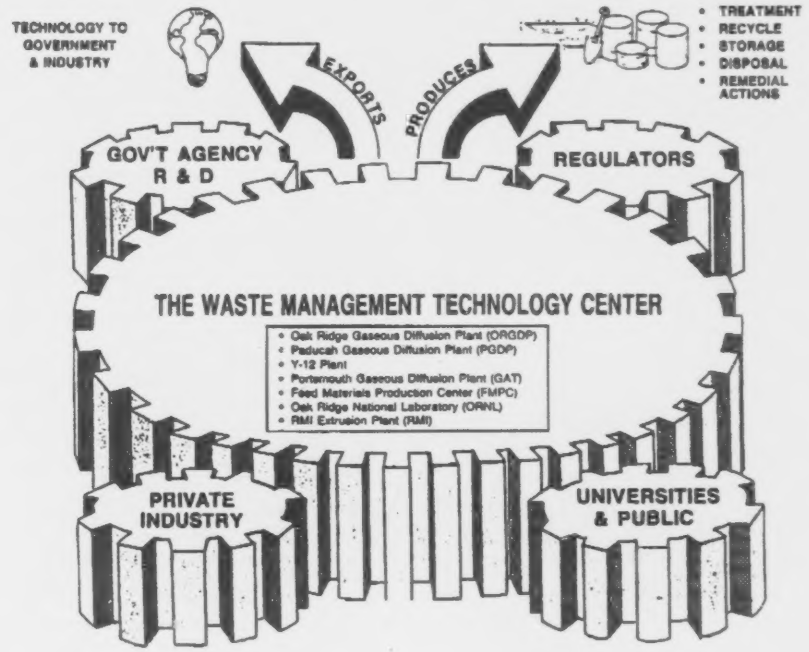
United States Department of Energy

THE OAK RIDGE MODEL:

AN APPROACH FOR WASTE MANAGEMENT TECHNOLOGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION

A Plan for the Future

The past several years have been a time of growing awareness of the waste management issues at the U.S. Department of Energy (DOE) facilities. The DOE team has taken decisive steps to work with regulators to solve yesterday's problems and plan for the future. The process being used to develop solutions to waste management problems is the basis of the Oak Ridge Model. The tool for implementing the model is the Waste Management Technology Center.


TECHNOLOGY TO GOVERNMENT & INDUSTRY
EXPORTS
PRODUCES
• TREATMENT
• RECYCLE
• STORAGE
• DISPOSAL
• REMEDIAL ACTIONS
GOV'T AGENCY R & D
REGULATORS
THE WASTE MANAGEMENT TECHNOLOGY CENTER
• Oak Ridge Gaseous Diffusion Plant (ORGDP)
• Paducah Gaseous Diffusion Plant (PGDP)
• Y-12 Plant
• Portsmouth Gaseous Diffusion Plant (GAT)
• Feed Materials Production Center (FMPC)
• Oak Ridge National Laboratory (ORNL)
• RMI Extrusion Plant (RMI)
PRIVATE INDUSTRY
UNIVERSITIES & PUBLIC

WASTE MANAGEMENT TECHNOLOGY
THE OAK RIDGE MODEL

The Philosophy

The Oak Ridge Model is not a facility. Rather, it is an approach to defining the interaction between DOE, the Environmental Protection Agency, State regulators, universities, and the private sector in identifying and implementing acceptable solutions to waste management problems.

The Oak Ridge Model is based on three philosophical points:

- those affected by waste management decisions should have a role in the decision-making process;
- all available resources (universities, private sector contractors, etc.) should be used to solve problems; and
- information exchange and processing is necessary within and across all involved groups and organizations.

The challenge is to develop the framework that embodies the Oak Ridge Model concept and allows for its broad application. The highest priority is to identify the solutions to waste management problems as soon as possible.

The components of the Oak Ridge Model include technology research, development, and demonstration; regulatory interface; public information; and technical interface/technology transfer. The focal point is the Waste Management Technology Center.

The Waste Management Technology Center

The center is a group of technical experts working together to define solutions to waste management problems. The center is not limited to the DOE Oak Ridge facilities. Rather, specific projects will be implemented by the center at the most appropriate sites in the Oak Ridge system. It will crosscut all four components of the Oak Ridge Model and will provide the forum for resolving the technical and institutional questions that must be resolved before technical solutions can be implemented.

Waste Management Technology Center Activities

The activities of the Waste Management Technology Center include:

- remedial actions,
- waste generation reduction,
- interim storage,
- improved operations, and
- technology development and demonstration.

On any given project, the exact role of the center will vary. However, the center will provide a focal point for information exchange and technology transfer.

The Center Objectives

The primary objective is to implement the Oak Ridge Model to solve waste management problems at DOE facilities assigned to Oak Ridge Operations. This model may also serve to help solve similar problems nationally. The current focus is to extend the life of existing disposal facilities through a combination of waste generation reduction, interim storage activities, and improved operations. The near-term objective is to reduce the immediate need for new disposal facilities, provide the time needed to gain information on available technologies, and provide the time needed to identify a low-level waste technology. The long-term objectives include providing the tools (the technology, process, or facilities) to other waste managers; broadening the scope from solving "local" problems to solving "national" problems; and transferring the technology not only to DOE, but also to the Environmental Protection Agency, the Department of Defense, the States, private industry, colleges and universities, etc.

A Method for Solving Problems

The Oak Ridge Model is a rapidly evolving concept. It is an approach for doing business—a method for solving waste management problems. It will be a demonstration of our ability to move forward and implement the next generation integrated waste management system not only for DOE Oak Ridge facilities, but for our Nation.

Mr. **LaGrone**. I mentioned the minimization of environmental problems. There is just one other point I would like to make. At Y-12, by changing the machining coolant that is used on the uranium from 4-chlorethylene to a water base, we have been able to knock out 460 tons a year of material that was going into the atmosphere. We think that is substantial.

I do not want to sit here and tell you all the problems are solved. We know there are still warts and pimples. But I am telling you we are on a course to commit to fix those problems.

Personalities come and go. Some of them will replace me. Will the next person be as committed? I would hope so. This is where leadership, I think, comes in, trying to create an ethic in a workplace that you will do things because they are the right things. Let us focus on what is right. That is the ethic I believe I have built into a substantial part of the senior DOE leadership at Oak Ridge. We have certainly imparted that to our contractors, and through the award fee process and whatever jawboning I have to engage in, I certainly intend to do that.

I would also like to say to you as a member of the Appropriations Committee, I want to thank you for the funds that have been provided for the work at Oak Ridge and other facilities for which I am responsible.

Senator **Sasser**. Thank you. That sounds very encouraging. Just let me ask one question to follow up on that, and you can answer this very briefly.

How closely are you working with the Tennessee Department of Health and Environment?

Mr. **LaGrone**. Very closely, sir.

Senator **Sasser**. Are they cooperating with you fully?

Mr. **LaGrone**. Yes, sir.

Senator **Sasser**. How about the Environmental Protection Agency?

Mr. **LaGrone**. The same is true with respect to Region IV. We have a good working relationship. It is not hand-in-hand, because it should not be between regulator and operator. But it is a constructive, productive working relationship.

Senator **Sasser**. Let me shift gears to another matter now. That is a very encouraging answer, and I take heart from it.

Ms. Walker, you say in your statement that Secretary Herrington will actively oversee contractors' activities to assure compliance with environmental laws. Now, in light of this commitment, how do we explain why the Department of Energy failed to monitor the high-flux isotope reactor for so many years? We let it go on and continue to operate in an unsafe condition. The reactor vessel was never tested to determine whether or not it was becoming embrittled. The embrittlement testing was forgotten for years. The containment vessel has become old and fragile. And finally, we did learn that this vessel was embrittled, but testing was never done.

How do we explain that?

Ms. **Walker**. Well, let me begin generally, and then again, I will give it to Mr. LaGrone, because that is his area. This was a failure in the monitoring and in the process that had been set up and put in place. It did occur largely prior to the time that Secretary Herrington had gotten there. As a result of this finding, my office is currently conducting several independent reviews as well as reviews being conducted at Mr. LaGrone's request, so that we can permanently not only rectify this particular technical problem, but that we can permanently make management changes that will ensure this does not take place again.

I have to say that we are in the process of change and that that is going to take place over several of our facilities. It does not happen overnight. A lot of this happened prior to the time my office was authorized to look, or encouraged to look, directly at facilities. That, of course, has been changed, and we now make over 100 safety appraisals a year directly of our facilities.

But on this specific issue, perhaps Mr. LaGrone would like to elaborate.

Mr. LAGRONE. Thank you. The high-flux isotope reactor was commissioned to operate in 1965. It is a 100-megawatt, nonpower-producing reactor, used to irradiate experiments, to produce isotopes that are used principally in medical-related activities.

There was built into the program a surveillance program whereby coupons of the metal making up the composition of the reactor vessel were stored in the reactor and were to be removed at specific points. It was done initially in 1969, then again in 1974.

The coupons were analyzed, but the data was not given back to the operators in a form that was usable, is my understanding. The next coupon batch was pulled in 1983, and they were not analyzed until 1986.

I was informed in November of 1986 that that analysis was ongoing and indicated that the vessel was embrittling at a rate faster than previously projected. I ordered the reactor shut down on November 14—I believe that is the date—and since that time, we have done an investigation looking mostly at the management procedures, quality assurance, what happened and what did not happen.

At the same time, I asked Ms. Walker's organization to come in and give us an independent study. So with that, we have about nine other studies ongoing.

My Type B investigation, Senator, showed that neither the laboratory nor my office in that period of time, nor the headquarters DOE office, had done the kind of oversight that really should have been done. That is the crux of it.

There was a surveillance program that should have been done, but I think what developed over those 20 years was a "No problem" mentality.

Whether the reactor will ever operate again or not, I do not know; I am not prepared to say. I am waiting for the results of those additional nine studies to come in.

Senator SASSER. How do we go about getting around that "No problem" mentality? I think that, Mr. LaGrone, you put your finger on it to some extent when you say let us do what is right in the workplace; let us not concern ourselves so much about laws, if we do what is right and correct, and what we know is correct, that we will be beyond the law. But how do we deal with this problem?

Over a 20-year period, this reactor was not reviewed periodically as it should have been to assure that it could work safely. And there is a great loss of confidence abroad in the land with regard to the Department of Energy. I sense it in my area when we talk about a monitored retrievable storage site coming to Oak Ridge. People throw up their hands, "No, no, we do not want that."

This is a matter of some concern. How do you respond to those concerns?

Ms. **Walker**. Well, I will answer generally as to the system. I think one of the things that breeds this—and I identify it as a complacency issue—is in fact, successful, safe operation of facilities. Where you have a facility that has been operating for 20 or 30 years without major incident, people do begin to believe in what they are doing in terms of status quo. So it takes the strong central oversight from my office and a dedicated commitment of senior management which you now have at Department of Energy in these operations managers and line management at headquarters, and certainly in Secretary Herrington and his top officials, that we will not be happy with what is, but we will want more, and that we will not insist on just compliance, but we will insist on excellence.

I think that it is not just something that is common to the Department of Energy. I think it is common to any industry where you have a major facility that has operated for a continuous period of time, basically, with safety statistics that lead you to believe you do not have a major problem.

Senator **Sasser**. The problem with the Department of Energy is if we get a failure in one of these things, it could be of a catastrophic nature that will not occur in other industries. So it is just almost beyond my comprehension as to why, over a period of years, we have not really rigorously and almost religiously lived up to these safeguards that we have built into these systems with our rules and regulations.

Ms. **Walker**. Well, I think one of the things you have to look at is our safety statistics. We are talking about safety now. I will leave the environmental area for a while. But the safety statistics of the Department of Energy are very good. I mean, that is evidence that the programs that they had in place are and were working. I think that is one of my concerns that that does not lead to a complacency and an acceptance of what is, when they really ought to be looking for what is better.

And certainly, as this Committee had pointed out before, with aging facilities you have a growing problem because you have a need to be ever more vigilant.

In fact, that particular incident, I think we should point out, was caught by the onsite management. I mean, it was working in the sense that they asked the questions and they caught the problem. But it is obviously something that needs to be fixed for the future so that we catch something like that much sooner than we did.

Senator **Sasser**. Well, it might be a result of having better onsite management than we have had in times past. But this thing had dragged on for a decade or longer before management changed.

Mr. **LaGrone**. Senator, part of what you are touching on, I would like to address very briefly. Part of this element of change has to come from where the work actually is done. That is why we have put the emphasis on forcing leadership, forcing management to take the actions that are needed. We are not perfect there, but we are headed in that direction.

I think you have to build an ethic into a workplace that says, "Ask the hard questions." Not only is it working, but how can we make it better? Part of the pressure I have put on our contractors is to develop managers. We are better in some places than we are in others—and I do not want to get into a public comparison of contractors. But I really think that getting down to the level of supervisors, engineers, plant directors, laboratory directors, forcing them to look for better ways—and just because it has always worked is not an acceptable answer in the eighties, as far as I am concerned.

Senator **SASSER**. Thank you very much.

Thank you, Mr. Chairman.

Chairman **GLENN**. Thank you, Senator Sasser.

Senator Mitchell.

Senator **MITCHELL**. Thank you, Mr. Chairman..

Ms. Walker, in 1985 there was published in the Harvard Environmental Law Review a law review article dealing with the regulation of hazardous mixed waste at DOE nuclear weapons facilities. It includes the following comment which I think well-summarizes the history of these circumstances and will lead me to a question I have for you.

The article states:

> DOE enjoyed virtually complete discretion over the management and disposal of its hazardous mixed waste until Congress passed the Resource Conservation and Recovery Act in 1976. RCRA not only established a comprehensive Federal hazardous waste regulatory scheme, but also required Federal agencies to comply with all Federal, State, regional and local requirements regarding hazardous waste disposal.
>
> Since 1976, DOE has continually attempted to avoid full compliance with RCRA. DOE initially responded to the statute by asserting a categorical exemption for all of its nuclear weapons plants operated under the Atomic Energy Act. When this exemption was rejected in the case of *Legal Environmental Assistance Foundation* v. *Hodel*, DOE asserted another exemption from RCRA for any operations involving mixed waste.
>
> Although DOE recently acknowledged that its mixed waste is subject to RCRA, DOE now plans to claim that much of its mixed waste is not mixed waste at all, but in fact radioactive byproduct material, which is exempt from RCRA by definition.

That is the close of the quote from that article. Now, the article, of course, accurately predicated what would happen. In November of 1985, DOE proposed a rule that exempted any mixed waste derived from special nuclear material from regulation under RCRA. This effectively removed mixed waste from regulation under RCRA. And it is my understanding that although the rule is only a proposed rule, DOE immediately began to apply it.

My first question is: Is DOE continuing to apply the agency's proposed byproduct rule to exempt itself from regulation of mixed waste under RCRA?

Ms. **WALKER**. If I could, I would like to go back through your question and address some points before I get to the end line.

I think that RCRA, in being enacted in 1976, changed the picture for everyone, not just the Department of Energy, but certainly industry was not so regulated before 1976 as well—that is to say, private industry.

The exemption that RCRA provided for source and special nuclear and byproduct was troublesome to the agency in the sense that it was not clear. The term "byproduct" had never been used in the waste context before; and while it was clear what "source and special nuclear" materials were it was not clear as to byproduct. And the definition in the Atomic Energy Act makes it rather difficult to apply to the waste context.

The Department did not take a position until *LEAF* v. *Hodel* clarified the application of RCRA, that that exemption was more broad, which is to say that the Atomic Energy Act provided for regulation in terms of the radiological constituents in a more broad fashion than obviously the court agreed with later.

Subsequent to the court decision, the byproduct definition was, as I understand it—and I was not the Assistant Secretary of Environment Safety and Health when that was put forth—but as I understand it, was put forth to again clarify a term that was not ever used in the waste context before.

That rule, as you said, was promulgated in November of 1985, and the Department had made the commitment in 1984, with *LEAF* v. *Hodel,* to apply RCRA to its facilities. And as I understand it, mixed waste which was essentially low-level mixed waste, we were moving forward to comply with RCRA in all respects as to that. But in terms of high-level and transuranic waste and, I guess, low-level waste that was byproduct, it was treated still somewhat differently under the Atomic Energy Act.

Now, that has changed to a certain degree, and the individuals operations managers may want to clarify as to their own facilities.

Certainly with the Rocky Flats agreement, we moved, even notwithstanding some of this vagueness that is still inherent in this, we moved forward with Colorado to ensure that they were happy with our mixed waste compliance in areas beyond which it was clear they had an ability to regulate.

So I think that the answer to your question is it is not a bright line; that the byproduct rule, as I indicated, is not going to be promulgated as proposed. The Department is currently reassessing what is appropriate, and I expect in the next few weeks that you will have a final decision from the Secretary on that. Recommendations have been made, and those options are being reviewed at this period in time.

The decision again is, you know, given the statutory construction that we have, given the definitions that we have, what is really appropriate and, notwithstanding that, what is really right from an environmental protection standpoint, wanting, of course, to comply with the Secretary's commitment to live up to the environmental laws and regulations.

So I wish I could give you a cleaner answer, but that is really where we are at this point, and perhaps if Mr. Berube or any of the operations managers would like to add, perhaps there is something else that could be added.

Senator **MITCHELL**. All right, but I have a couple other questions I want to ask you as well. Is your office responsible within DOE for environmental compliance at all DOE sites? Is there a central entity responsible for that?

Ms. **WALKER**. I am responsible, and my office is responsible for the oversight for environmental compliance. Environmental compliance, as with safety, is a line management function as well.

We do not remove responsibility from the line managers, from these operations managers and the people they supervise and the contractor organizations they are responsible for overseeing. My office is an independent, totally independent from the programs, check, oversight, standards and policy organization. So in a sense I have responsibility for all of it from the assurance and oversight standpoint. But I do not have sole responsibility in the sense that every line manager in the Department is expected to have responsibility for environmental as well as safety compliance.

Senator MITCHELL. But since this is a national law covering the national Government, I think it is important that there be a national policy followed by your agency.

Ms. WALKER. Oh, and absolutely, we agree. And my office is responsible for setting uniform, consistent policies and standards and guidance as a result, exactly recognizing the point you are making.

Senator MITCHELL. In this year's budget, how much money did DOE request for environmental compliance, and how much was included in the President's budget submission to the Congress?

Ms. WALKER. If you could give me just a moment. [Pause.]

Senator Mitchell, if I could, I am going to have to answer including safety as well as environment, because I do not at this point in time have the numbers for just environmental. It may be possible to give you that separately, but——

Senator MITCHELL. Well, why don't you do it in writing, give us the total figure and break it down.

Ms. WALKER. I will be happy to. I will be happy to, because all I have here are the environment and safety combined.

Chairman GLENN. Would you yield just a second, George?

Senator MITCHELL. Yes.

Chairman GLENN. One of the earlier figures given this morning was out of the $8 billion budget, a little over $700 million, or a little less than 9 percent, went to safety upgrades, environmental cleanup and studies.

Ms. WALKER. That is only a portion, and it only pertains to one of the programs, Defense Programs, as I understand it, and it does not include the other components of the Department where there are significant environmental and safety measures.

Chairman GLENN. Okay.

Ms. WALKER. It is closer to $2 billion per year.

Senator MITCHELL. So you will give us in writing the figure that you requested as part of the making up of the budget for environmental compliance and the figure that is included in the budget?

Ms. WALKER. Absolutely, Senator.

[The information referred to follows:]

The Department's environmental compliance activities are funded under a very large number of different budget accounts. This approach is necessary to address a wide variation of compliance needs to DOE facilities but it effectively precludes developing complete summaries of DOE budget requests and expenditures for environmental compliance. Accordingly, we can only estimate a range of values for the information requested. Our estimates are: the President's budget request for Fiscal Year 1988 includes between $660 million and $700 million for environmental compliance activities; and, the Department's related request was ten to fifteen percent higher.

Senator MITCHELL. All right. Back to your earlier response about your relationship with the line managers. What happens if you disagree? Who has the ultimate authority?

Ms. WALKER. Initially, it would be the Undersecretary who is the chief operating officer, and then the Secretary of the Department.

Senator MITCHELL. In other words, you do not have authority over the line managers; someone else besides that?

Ms. WALKER. In some cases, I have authority. For example, they cannot start up facilities, they cannot restart facilities without having my concurrence. If I do not agree, they cannot restart them absent the Secretary making a decision. So there is a check and balance system there where I have the authority to stop something.

But ultimately, it is the Secretary of Energy who is held responsible, and ultimately the Secretary of Energy who makes those decisions, yes.

Senator MITCHELL. Ms. Walker, at page 6 of your written statement, you say that "The DOE expects its operating contractors to share its commitment to good environmental management."

In his statement, Dr. Porter listed multiple notices of violation and enforcement action taken with respect to DOE facilities since fiscal year 1985.

Can you tell me in how many cases has the DOE applied, levied sanctions, against operating contractors as a result of environmental failure?

Ms. WALKER. I would like to provide a specific number for the record if I may. But I will tell you that they certainly have, and these operations managers sitting here with me can testify personally to that, because they have in some cases withheld completely award fee matters. We work closely with them to identify instances where that might be appropriate. In other cases, they have "dinged" them significantly on award fee basis. There are other actions as well.

Mr. LaGrone is a perfect example to give you this, but again, I will provide the total number for the record.

Senator MITCHELL. Yes, I would rather have a complete statement rather than individual anecdotal response. If I could——

Ms. WALKER. Okay. We also have changed contractors, by the way; we have removed them entirely where we felt they were not performing as they should in this area.

Senator MITCHELL. For failure to comply with environmental requirements——

Ms. WALKER. Yes.

Senator MITCHELL [continuing]. Or for other reasons?

Ms. WALKER. No. Environmental and safety performance.

Senator MITCHELL. All right. That is what I would like to have.

Mr. Chairman, if I could ask one more question.

Chairman GLENN. Certainly.

Senator MITCHELL. Earlier, Ms. Walker, I referred to the GAO Report of September 1986, which assessed DOE's compliance with environmental laws at nine DOE sites which were selected as representative of the diversity of DOE activities.

Now, with respect to groundwater, I made reference to some of the specific findings regarding levels of trichloroethylene and others—and I will not repeat them here to save time. The GAO concluded that DOE does not have a groundwater protection strategy.

My question is have you since then taken any steps to prepare a comprehensive groundwater and soil protection strategy at DOE facilities?

Ms. **Walker**. Yes. I will attempt to highlight some of those for you——

Senator **Mitchell**. No, I do not want to take up the time to do that, Mr. Walker. I would ask if you could do this, if you could submit in writing to the Committee a copy of those documents which set forth that strategy.

Ms. **Walker**. Absolutely. If I could, the final strategy has not been developed. We already have put in places steps to develop that strategy, and I believe those are significant. I would be happy to provide you with a list of those that show you how we are moving toward meeting that recommendation which we have decided to and have concurred in and will implement.

Senator **Mitchell**. That is fine. And would you also include in there the date upon which you expect that strategy to be completed, or begin to be implemented, however the phrase would most accurately describe its status?

Ms. **Walker**. We will attempt to provide a time frame, yes, sir.

Senator **Mitchell**. Okay. Thank you, Ms. Walker.

[The information requested follows:]

A DOE Groundwater and Soil Protection Strategy is currently being developed and steps to prepare the strategy have been undertaken. A draft DOE Strategy will be completed by the end of the current fiscal year. The purpose of the Strategy is to provide DOE-wide guidance and direction and to integrate a wide variety of ongoing programs dealing with groundwater and soil protection, including revisions to existing DOE internal orders, and site specific activities currently being undertaken to comply with the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

The following activities have been initiated to develop the strategy:

1. Identification and review of existing strategies which may be applicable to DOE facilities and activities, including review EPA's Groundwater Strategy and related documents. Based on the review of existing strategies basic elements that should be included in a DOE-wide strategy will be identified.
2. A study of the nature of groundwater contamination at DOE facilities and a related study on the use of soil columns.
3. A review of current DOE efforts to deal with groundwater and soil contamination that includes reviewing: (a) two revised internal directives that will be in place by the end of the fiscal year, DOE Draft Order 5480.12 General Environmental Protection Program Requirements and DOE Draft Order 5480.XX Radiation Protection of the Public and the Environment, (b) current field activities regarding groundwater protection and soil contamination at specific sites, and (c) current environmental assessment activities such as the development of a risk based priority model (RAPS), results of the Environmental Survey Program, and also DOE commitments to groundwater and soil protection.
4. Based on the activities described above, preparation of a draft Strategy document is expected to be completed by the end of the current fiscal year and a final Strategy is expected to be issued by the end of this calendar year.

Senator **Mitchell**. Mr. Chairman, thank you. I may have several other questions that I would like to submit in writing, Mr. Chairman.

Chairman **Glenn**. Good. We would appreciate your early response to those.

Senator **Mitchell**. Thank you, Mr. Chairman.

Chairman **Glenn**. Thank you, Senator Mitchell.

A couple of parochial questions back home in Ohio, on Mound, in particular, before I get to some more general ones here. Is the tritium still leaking from underneath the southwest building at Mound?

Ms. **Walker**. If I could ask Mr. LaGrone to address that.

Mr. **LaGrone**. That should be directed to Albuquerque. That is their responsibility.

Ms. **Walker**. I am sorry. That is right.

Ray, do you have that information?

Mr. **Ofte**. Senator, if I may, I am Don Ofte, Defense Programs. When this problem emerged back in the 1974 to 1976 time frame, the people at Mound sat down with the Ohio EPA and the U.S. EPA and consulted with one another on a method of treatment. And the method of treatment was pumping.

During the first year of pumping, they had to pump for a total of 300 days in that first year of operation in 1977, to maintain drinking water standards in that aquifer. Last year, that was down to 40 days. So there has been substantial progress with the passage of time in ameliorating the situation, and it does not indicate any kind of a gross influx of tritium into the facility.

As to whether there is any leakage now from the SW building, I am not sure, sir, and I can take that for the record and provide that.

[The information referred to follows:]

Current information does not support the theory that there is tritium leaking from under the SW building. Emphasis on the Department's policy of "As Low As Reasonably Achievable" (ALARA) has significantly reduced leakage of tritium from process equipment and steadily lowered environmental levels of tritium around Mound since the 1970's.

Tritium has been processed at Mound, primarily in the SW building, for approximately 30 years. Since tritium is a radioactive isotope of hydrogen, and behaves like hydrogen, it moves in water throughout the environment. This fact, coupled with the facts that the site geohydrology is complex and that very low concentrations of tritium with decreasing trend are being observed, suggest that the source(s) of currently observed tritium are from past events and are probably, but not necessarily, associated with the SW building. Recent efforts under our program to comply with Comprehensive Environmental Response, Competition and Liability Act are now directed at achieving a better understanding of the source and transport of part per quadrillion levels of tritium that have been identified near the SW building and elsewhere around the plantsite. This ongoing evaluation, and the site geohydrologic investigation, as a whole, is being conducted with the full review of the Ohio Environmental Protection Agency (EPA) and EPA Region V.

Chairman **Glenn**. Would you, please. But did you determine whether it is pumped—how do you do this—on a particular day, you take a reading, and if it is a certain level, do you start pumping?

Mr. **Ofte**. We have a gentleman from Mound here who can answer that question specifically, sir. I cannot.

Chairman **Glenn**. Okay. Well, we are continuing to pump, then, to keep within the required level?

Mr. **Ofte**. Yes, sir. But as I say, we are on a curve of a decline. But let me, if I may sir——

Chairman **Glenn**. Has the curve flattened out now, or are we going to be on sort of this mode for the indefinite future, or is this something that has time limit to it that we can see?

Mr. **Ofte**. I do not know what the end point is, sir, but I can provide that. I just do not know at this point in time.

Chairman **Glenn**. Okay. I would appreciate whatever you can give us on that for the record.

Mr. **Ofte**. Yes, sir.

[The information requested follows:]

All drinking water wells in proximity to Mound have been in compliance with the Safe Drinking Water Act since 1980. A city well adjacent to the western site boundary which was abandoned because of high dissolved solids content is used as an indicator for the aquifer pumping program. This well typically has had the highest tritium concentrations and is the first well to show increases. This well is sampled and analyzed for tritium weekly. When the tritium concentration exceeds 20 nanocuries per liter, the well is pumped. Pumping is continued until the tritium concentration falls below 20 nanocuries per liter. All drinking wells in the vicinity of Mound are monitoried on a regular basis. Since 1980, the tritium concentration in these wells has been within the drinking water standard and has been steadily decreasing.

Chairman GLENN. Back to the funding just for a moment. Attorney General Celebrezze here a while ago testified in his testimony that U.S. Attorney General Meese has a policy which says basically that Federal agencies such as your own are not even allowed to ask Congress for needed funds. Is that correct?

Ms. WALKER. Senator, I would like to read specifically the portion of the Attorney General's policy that all the agencies, of course, are complying with. It indicates that,

> The department or agency involved should not enter into a settlement agreement that commits that department or agency to expend funds that Congress has not appropriated and that have not been budgeted for the action in question.

Chairman GLENN. But he did not have any objection to that as I recall. That was not the gist of it.

Ms. WALKER. Excuse me just a moment. (Conferring with staff.)

Chairman GLENN. Well, he commented on that later on, too, during the question period, that he did not have any objection to saying obviously you cannot spend money that has not been appropriated, but he did object very, very strongly to a policy that said that agencies cannot ask for money for something like this, that obviously has to be done.

Ms. WALKER. It is not that we cannot ask; it is that we cannot commit in writing to funds that have not been sought.

Chairman GLENN. Well, let me read that paragraph out of Attorney General Tony Celebrezze's testimony. He says,

> Finally, Attorney General Meese has adopted a policy, a copy of which I have provided to the Committee, which effectively precludes settlements of lawsuits on terms which would commit a Federal agency to spend money to bring its facilities back into compliance with environmental laws prior to approval by Congress of the appropriation to remedy the situation. Indeed, pursuant to the Attorney General's policy, the agency is not even allowed to commit to ask Congress for the needed funds. Since these projects can and do take many years to complete, this settlement policy appears to be a malevolent "Catch-22" designed to prevent such compliance commitments.

Ms. WALKER. Let me read you the specific portion of the Attorney General's policy I believe that refers to this.

> The concern here is with the department or agency limiting its discretion by consent decree where it would assert that a similar limitation imposed by injunction unduly or improperly constrains executive discretion. And the Justice Department has indicated it will not authorize any consent decree that limits a department or agency in any of the following three manners.
>
> First, the department or agency should not enter into a consent decree that converts into a mandatory duty the otherwise discretionary authority of the Secretary or agency administrator to revise, amend or promulgate regulations; secondly, that the department or agency should not enter into a consent decree that either commits the department or agency to expend funds that Congress has not appropriated and that have not been budgeted for the action in question or commits the department or agency to seek a particular appropriation or budget authorization.

So that is the constraint.

Chairman GLENN. Read that last part again, the last sentence.

Ms. WALKER. "* * * that either commits the department or agency to expend funds that Congress has not appropriated and that have not been budgeted for the action in question or commits the department or agency to seek a particular appropriation or budget authorization."

I would be happy to provide you with a copy of the policy.

Chairman GLENN. I think we have a copy of it here, but this is something we may want to go into a little bit further, because it would sound as though what you just read there backs up what the Attorney General said.

Ms. WALKER. Well, we do not believe that it has thwarted our ability to enter into settlement agreements. Specifically, for example, the landmark Rocky Flats agreement, we committed to a technical program, we committed to schedules, and we have been able to meet those schedules. We did have to work out language that complied with the Attorney General's policy, and it took us some time to do that, but we believe that that language has not hindered our ability to comply with that agreement.

Chairman GLENN. Okay. Well, we need safety of the reactors, we need cleanup, we need environmental cleanup and so on. Have you asked for more money for these purposes?

Ms. WALKER. Yes.

Chairman GLENN. Was it turned down?

Ms. WALKER. No. The Department has made increases in its environmental and safety spending every, single year. I believe that 1988 represents a 24 percent increase over 1986.

Chairman GLENN. What did you ask for out of your office in this current budget?

Ms. WALKER. I would like to provide that for the record. The actual fiscal 1988 request is $70 million, sir. I believe the request may have been several million higher, maybe $76 million.

Chairman GLENN. I would like to know what your department has asked for since it has been established—when was your particular office established?

Ms. WALKER. September of 1985. And since that time we have gone from essentially, I believe it is about a $40 million budget to a $70 million budget.

Chairman GLENN. Okay. You have been through two budget cycles, then, since you came in, right?

Ms. WALKER. Yes.

Chairman GLENN. Okay. Could you provide us with the record of what was asked for and what was cut back, in the different areas that your department oversees?

Ms. WALKER. When you say "asked for" do you mean the Department request and what Congress gave us?

Chairman GLENN. What you thought was appropriate out of your office and what you submitted to the Department and what happened to it at each step along the way. I would like to know at each step.

Ms. WALKER. Absolutely. We would be happy to.

[The information requested follows:]

For fiscal year 1987, the Office of Environment, Safety and Health proposed a budget of $76 million and this proposal was approved by the Department and included in the President's budget request. The $76 million request submitted to the Congress was reduced to $58 million by the House and to $66 million by the Senate. The final appropriation after conference is $62 million.

For fiscal year 1988, the Office of Environment Safety and Health proposed a budget of $75 million. The Department approved a budget request of $73 million. The President's budget request included $70 million. This budget request is currently pending before the Congress.

Chairman **Glenn**. Okay, fine.

In your statement you say there was some complacency because these plants have operated safely over 20 years or so, and I think you are probably right, but it is determined on how we define "safely." When we now find that we were operating reactors with cracks for seven years, cracks that might have been discovered had we put the same safety criteria to those reactors that are applied in the civilian area with electrical/nuclear generating plants. We have to come back with production came first through these years, and safety and environmental concerns came second too much of the time. Now, this is not just a critique of this Administration; this goes way on back, I know that, so we have built up a head of steam here, a head of problems.

I do not have any doubt of your dedication and the dedication of each person at this table in front of me to address this thing. Had we had people like you, maybe we would not have had some of the current problems. But once again, I come back to that we are not operating in this field just on personalities, and that is the reason we think some legislation is necessary.

I got to know Joe here back when we first had our problems at Fernald. I was much impressed with Joe. I will say that in front of him here and in front of everybody else. He came up, addressed those problems, and we have been making progress in those areas ever since. Now, we do not have them all solved, as he said. There are still problems there at Fernald and some of the other places. But the point is, the safety of the people in those communities should not be dependent on a Joe LaGrone or a John Glenn pointing out the problems.

We will pass from this mortal earth one day ourselves, and somehow we hope to get this whole mess of our nuclear situation cleaned up so people can rely on safety even though they live right next-door or work in one of these plants. It should not depend on me, hearing complaints from people and then taking some action, or Joe LaGrone responding. He had been on the job, what, six months or eight months or so, whatever it was, when that thing broke, so he was caught sort of new on his watch there. But it should not depend on who is on the watch here in the Senate or out there at Oak Ridge or wherever, it seems to me. That is the reason we have pushed for some of the legislation that we have pushed for.

Let me just ask this. Is DOE unalterably opposed to outside, independent oversight of DOE activities—namely, do you oppose outside, independent oversight of reactors safety?

Ms. **Walker**. As we discussed at the March 12 hearing, we are not unalterably opposed to outside oversight. We are keeping an open mind on this. In addition to the measures that the Secretary has taken to strengthen my office and to make a strong, centralized oversight within the Department, he has also asked me to look at several issues concerning additional measures which might be taken—including the permanent creation of outside components such as an ACRS-type group or an INPO-like group that could be used to further strengthen and, as you point out and I think is important, institutionalize a strong safety function within the Department.

On the environmental side, we are not self-regulating to anywhere near the degree as in the safety area. EPA and the States oversee us in every, single area of environmental regulation——

Chairman GLENN. Every other entity in Federal Government is overseen by EPA in these areas.

Ms. WALKER. Well, EPA oversees us, too; they are all over our facility.

Chairman GLENN. Not to the same extent, though. That is where you have your exemptions is in that area.

Ms. WALKER. Well, I think even in the area, as I indicated, of high-level and transuranic waste, where it is still not clear, I think it will become clear very shortly. But where it has not been clear, we have invited them in to look at those facilities. We have encouraged them to do independent verification and hope that they will in any case, because we know that that is important. So I think we are already working toward that.

Chairman GLENN. But they do not have the same authority to do something about it with DOE as they have with every other entity of Government.

Ms. WALKER. I think with every Federal agency, there would be some differences than there would be with the private sector, as the Constitution would provide, and I do not think we would be different than would DOD or other Federal agencies.

Chairman GLENN. Get this out of personalities, though, as I have termed it; I think we need the checks and balances. You refer very properly to checks and balances. We need those, but we need that check and balance as it is with all other levels of Government, it seems to me, with some authority, and not just with somebody we permit in once in a while at our own discretion to monitor what is going on. We need it on a more substantive check and balance basis on that.

Let me ask you secondly, do you oppose outside independent oversight of Environmental Protection activities at DOE sites?

Ms. WALKER. No. As I indicated, I believe that is ongoing, and we are encouraging it.

Chairman GLENN. All right. Do you oppose allowing NIOSH to have blanket authority to enter DOE plants and to have access to health records of DOE workers?

Ms. WALKER. I believe that we have a relationship with NIOSH that makes sense. I do not know that it would make sense to do anything quite on that scale. I would be happy to provide a more detailed response for the record.

Chairman GLENN. There have been some problems in that area before; that has not worked all smoothly.

Ms. WALKER. I think we have used NIOSH, and we have asked them to perform reviews in areas where that is meaningful. I think not in every area—when you say blanket authority—would be appropriate.

Chairman **Glenn**. I would submit that it has usually been under Congressional pressure when we were asking that NIOSH be permitted to come in. It has not been a voluntary thing where NIOSH felt all they had to do was just make the request, and they could come in, when they have been doing some of their studies.

Ms. **Walker**. Well, I believe it was initiated by the Department, but we can certainly provide that for you, sir.

[The information referred to follows:]

The Occupational Safety and Health Act created two new organizations, the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor and the National Institute for Occupational Safety and Health (NIOSH) of the U.S. Department of Health and Human Services. Basically, OSHA's functions are to promulgate and enforce workplace safety and health standards; NIOSH's functions are primarily those of research (development and safety and health criteria documents for later use by OSHA) and the conduct of workplace health hazard evaluations (determinations and investigations of potentially toxic or hazardous effects of substances/physical agents used or found in the workplace).

The Occupational Safety and Health Act of 1970 does not apply to the working conditions of contractor employees at the Department's government-owned contractor-operated facilities. DOE's policy is to provide contractor employees all the protections they would receive if they worked for an employer regulated by OSHA. Therefore, the DOE has adopted Occupational Safety and Health Administration (OSHA) construction, general industry, and maritme standards and cooperates fully, with the National Insitute for Occupational Safety and Health (NIOSH) in its role of conducting occupational safety and health special studies and research. A number of NIOSH health hazard evaluations have been conducted at DOE facilities including weapons producing plants.

I am advised that in the 1983–84 timeframe, prior to my coming to the DOE, the NIOSH access to records of DOE contractor employees was prohibited by the Privacy Act, and this delayed the start of a NIOSH study at the Feed Materials Production Center (FMPC) in Fernald, Ohio. The Department's System of records for these contractor employees was amended to permit NIOSH access to such records in compliance with the Privacy Act NIOSH was that permitted access to the records of DOE contractor employees at FMPC.

Chairman **Glenn**. Okay, fine. There has been a lot of material asked for that would be submitted for the record. We hope that could be brought in forthwith or as soon as possible.

Some of you gentlemen have not had a chance to make a statement here. I would like to give you a chance to make any wind-up statement you would wish to make. Let us go across the board, here. Joe, let us just start there. We are all trying to get to the same goal here, and we have some differences of opinion on what the check and balance should be and the oversight should be over this, I know that. But I really think we have to move to something more than just depending on nuclear safety, depending on just what people happen to be in what jobs for what few years. It has to be based on something far more substantive than that. And we want to work together, and any suggestions any of you have or comments you have—you have been sitting through the hearing or part of it here today.

Joe, we will start with you.

Mr. **LaGrone**. Senator, I have probably said enough today, but I just want to reflect my continuing commitment to do the right thing, to fix the problems that are there, to work with the public, to work with the regulators, to work with the Congress, and to express my appreciation for the support we are receiving.

Chairman **Glenn**. All right, thank you.

Mr. MORGAN. I would just like to say a couple of items. I would like to refer to Mr. Bedenbaugh's testimony and the attachments to that. With the Memorandum of Agreement that we have with South Carolina, if there is a question coming out whether there is a State law that prevails or not that has not been directed or delegated to them by EPA, we as a matter of comity go ahead and accept that, and that is an agreement that has been signed over two years ago. We were trying to get behind or away from this jurisdictional discretion and get on with solving the problems.

I would like to say that in the "M" area that has been discussed, where we have the solvent problem that is extremely heavy, after working with Congress in 1984, we added a supplemental appropriation in 1984 to stop any further pollution in the use of the seepage basin. We made commitments to complete that by November 1985. We completed that in July of 1985, sir.

In other words, we are not polluting that area anymore, and we have for the last year and a half been using this airstripper, and we have taken approximately one-third of the solvents out, from taking the groundwater up, stripping the solvents out with the air, and just this last week we have started another program in the unsaturated zone above the ground level. We are vacuuming the air out; in other words, we are actually vacuuming air by drilling down into the ground and then other wells on the outside, and we are stripping 250 pounds a day of this trichloroethylene, and this is permitted by the State on a three-week experimental process.

So we are coming up with new technologies, and we are working at it, and we intend to continue, sir.

Chairman GLENN. Wasn't the 1984 situation, though, in court for a period of time before action was taken?

Mr. MORGAN. No, sir, no, sir. When we found out that we had it—the litigation that we had or the potential was on the "L" reactor restart, whether we would have an environmental impact statement or the environmental assessment.

Chairman GLENN. Okay.

Mr. BERUBE. I guess what I would like to offer is a perspective from somebody down in the trenches. I have been with DOE for about eight years now in different capacities, but generally in the environmental program. Over the last two years, I have seen dramatic changes in the Department's attitudes and the ethic that Mr. LaGrone was talking about. I do believe we are making progress. There is a lot to be done, and it is going to take years, and it will be extensive.

But we are headed in the right direction, and I think we need some time to make further progress.

Chairman GLENN. Okay. It is going to take a long time, and I am scared to death when we get the bill what this thing is going to cost; that is what concerns me an awful lot.

Let us start at the other end.

Mr. LAWRENCE. Senator Glenn, with respect to the Hanford reservation in the State of Washington, I think we have made substantial progress in our dealings with the State and EPA Region X. We meet with them monthly. We have submitted a Hanford environmental monitoring program and management plan to show enforcement. Obviously, we have got a long way to go, but I think we have made substantial improvement.

Due to recent actions, there are no RCRA-regulated liquid discharges now going to the soil at Hanford; we have eliminated that. And a report that Congress requested regarding our plans to eliminate the discharge of radioactive liquid waste to the soil is being completed right now and will be submitted to Congress by the end of the month. I think that represents substantial progress as far as Hanford's environmental problems are concerned.

Chairman GLENN. Thank you.

Mr. OFTE. Senator, when Admiral Foley came onboard in December of 1985, he went out and visited all our Defense Programs facilities and likewise went through a series of program briefings by those of us who had been on the staff before he came onboard.

He came back with a conclusion from that series of visits that the complex as he saw it out there was a mix of old and new, and in many aspects was quite fragile. And I think that you have spoken to that in these last two hearings several times yourself.

In terms of the funding trend within defense programs that are dedicated to the environment, safety and health function, in 1985, we reached a high point in our budget when our total budget for that year was $7.796 billion, authorized by the Congress. In 1988, we have before the Congress a request at $7.438 billion. So we have gone down $358 million. In that same time period, sir, our ES&H budget for the entire environment safety and health activities within the Defense Program budget has gone from $564 million to $740 million, or an increase of 31 percent.

So, while our total budget was declining, we have increased our allocation to environment safety and health to try and met the kinds of challenges that you have been talking about.

Chairman GLENN. But can you give me any wild estimate of what the total bill is going to cost? I am not interested in percentages or whatever. I am interested in the dollars being allotted that are going to do the cleanup; what is it going to cost us to do what has to be done—not just a percent of DOE budget, but what has to be done.

Mr. OFTE. Well, looking ahead of the kind of environmental mortgage that we are now facing, I think that GAO was quite accurate in saying that it will be certainly in excess of $1 billion.

The other thing that I think you have touched upon several times was are we taking any long looks. And one of the things that Admiral Foley asked us to put into place, and we have, is a five-year planning analysis group, and a separate strategic issues analysis group. And part of that activity is trying to look at what our complex is going to look like in the year 2010. We are in the midst of that study now, and late in this calendar year, we expect to complete that. We felt we had to get that kind of insight into the future to think about the kind of decisions we need to be making near-term.

Chairman GLENN. Good. Ms. Walker, I meant to get back to this earlier. One last question before you make any summary statement you want to make.

You talked about things that are being done. The baseline environmental survey, the technical safety appraisals both have a time period of three years hooked up with them. Is that a money factor that we cannot do it more rapidly, or is it just time, or are there not that many experts? Do we have to wait three years before we can really put together a plan for how we are going to deal with this thing?

Ms. **Walker**. Two things on that. One is there are some time constraints built into it just by the number of facilities or places we have to go. It was initially designed to be completed sooner, but Congress in cutting the effort financially made it impossible to accomplish without stretching the schedules.

Chairman **Glenn**. How much cut was there in that area; do you know?

Ms. **Walker**. I would have to provide that number for the record.

[The information referred to follows:]

The Department's request to reprogram $7.6 million in Fiscal Year 1986 for start-up activities of the Environmental Survey was approved by the Congress at a reduced level of $4.8 million. In addition, the Office of Environment, Safety and Health's Fiscal Year 1987 budget request of $76 million, which included $30 million for the Environmental Survey, was reduced by the Congress to $62 million. The effect of these reductions has been to delay the planned completion of the Environmental Survey from the third quarter of Fiscal Year 1988 to the second quarter of Fiscal Year 1989.

Ms. **Walker**. I do know that it resulted instead of an 1988 closure, and 1989 closure. But in any event, we are not waiting for the end of that time period in order to have results from this. As a matter of fact, as I indicated, we had the defense facilities up-front, which were the most complex, most environmentally problematic sites, and we expect to have some initial information from that more toward the end of this year.

So I hope that it will not be the end of 1989 before we have some information for you. Certainly, these surveys are paying off as every one is done.

Chairman **Glenn**. Fine. Do you have any other statement you want to make?

Ms. **Walker**. My only ending statement would be that I would like to thank the Chairman for what I perceive to be his dedication in this area. I am impressed with your persistence and your dedication, and I think the American public is served by that.

I think also that you have a similar dedication in Secretary Herrington in this. We are working to make the institutional changes that will leave a legacy once these particular managers are gone, and I appreciate the opportunity to work with you.

Chairman **Glenn**. Thank you very much. I appreciate that, and we want to work together on this. It is going to require all of us working together on it. It is going to be a long haul, and it will probably still be going on long after we have departed our present positions, whatever they are, one way or another. But we have got to get started on it. I think we have waited too long. We have waited decades too long to really address the problem. It is going to be very expensive. You say it is going to cost at least $1 billion to clean up; I would be very surprised if you are not off by a factor of 15 or 20 on that by the time we get done with it. That was not your figure; you were quoting someone else, I realize. But when you think of the enormity of trying to deal with aquifer levels and how we are going to handle some of these very, very dangerous wastes and the way they are stored, how we can move them around—do we take them off surface storage; do we deep-six them into wherever, bury them; do we sometimes fire them back into the sun with a rocket or something? I do not know what we do with them sometimes. But just the cleanup is going to be enormous, and it is going to be well, well beyond any $1 billion to do it, and we have got to do it.

So I hope we can work together on the legislation that we are proposing here. You call in outside experts, obviously, for some of your own studies. I think that is wise to do that. All we are doing is saying in something this important, we want the checks and balances of outside experts also, namely, although it is another department of Government—it is charged with the same kind of monitoring for every other function of Government. It is not that we do not trust you. It is just that we want to set it up so it goes on into the future and we get this whole thing under control.

The hearing will stand in recess subject to the call of the Chairman.

Thank you.

[Whereupon, at 12:58 p.m., the Committee was adjourned, subject to the call of the Chair.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

United States General Accounting Office
GAO
Testimony

For Release
on Delivery
Expected at
9:30 a.m. EST
Tuesday
March 17, 1987

Environmental Aspects of the Department of Energy's Nuclear Defense Activities

Statement of
Keith O. Fultz, Associate Director
Resources, Community, and Economic Development
Division

Before the
Committee on Governmental Affairs
United States Senate

Mr. Chairman and Members of the Committee:

We are pleased to be here today to discuss the General Accounting Office's (GAO) work concerning environmental aspects at the Department of Energy's (DOE) nuclear defense facilities. Over the past 2 years, GAO has issued six reports--many prepared at your request, Mr. Chairman--concerning environmental issues and problems within the DOE nuclear defense weapons complex. These reports have identified problems at individual facilities as well as systemic issues facing DOE.

Our major concerns are that DOE's operations (1) have contaminated groundwater and soil with high levels of both radioactive and hazardous substances and (2) do not fully comply with environmental laws. We believe both situations have occurred because DOE has not given sufficient emphasis to environmental protection at its facilities. DOE will have to spend billions of dollars to acquire the necessary environmental permits, change some of its operating and disposal practices, and cleanup existing contamination. We also believe that some of DOE's sites may be irreversibly contaminated and may require long-term institutional control. Finally, DOE has not defined the full scope of its environmental problems, the corrective actions needed, and the costs and time frames to resolve them.

We have recommended that DOE (1) provide the Congress a comprehensive report on its plans, milestones, and cost estimates to bring its facilities into full compliance with applicable environmental laws and (2) develop an overall groundwater and soil protection strategy. We believe that once DOE fully implements these recommendations, the Congress and DOE will have a better perspective on the environmental risks and impacts of DOE's operations and of the budgetary implications, and time frames associated with the cleanup activities required. Comprehensive information on environmental problems and an overall groundwater and soil protection strategy would be key components in the overall strategic plan for DOE's nuclear defense complex that Mr. J. Dexter Peach, Assistant Comptroller General, called for in his testimony before this Committee last Thursday (March 12, 1987).

Before I highlight some of the environmental problems we have identified and the actions DOE needs to take to correct them, I will provide you a brief overview of DOE's environmental compliance responsibilities.

DOE'S ENVIRONMENTAL COMPLIANCE RESPONSIBILITIES

DOE's primary mission is to produce nuclear material (plutonium and tritium) for weapons and naval fuel. This mission is carried out at numerous facilities at 18 sites around the nation--many of which were built more than 30 years ago. DOE's operations routinely use and generate large quantities of a variety of hazardous and radioactive substances. These substances must be handled, transported, and disposed of carefully, not only to prevent worker exposures but also to prevent their release to the environment. Many of the substances contain lethal levels of radiation that must be handled with special equipment.

DOE's policy calls for conducting its operations in an environmentally safe manner. For example, the policy states that its facilities should comply with both radioactive and nonradioactive air emission standards established by the Environmental Protection Agency pursuant to the Clean Air Act. With regard to liquid emissions, DOE regulates itself for the amount and type of radioactive material released but is subject to the Clean Water Act for nonradioactive releases. To do this, DOE's facilities obtain National Pollutant Discharge Elimination System permits from states.

DOE also generates both radioactive and hazardous waste. Until 1984 DOE self-regulated all its waste activities. In 1984, however, a U.S. district court ruled that DOE's hazardous waste was subject to the Resource Conservation and Recovery Act. As a result, DOE must now comply with federal and state regulations in handling and disposing of hazardous waste.

MAJOR ENVIRONMENTAL ISSUES IDENTIFIED IN GAO REPORTS

Let me briefly summarize our work over the past 2 years that has identified a number of environmental issues and problems at numerous DOE facilities. These reports have resulted in several recommendations.

Information on Three Ohio Defense Facilities (GAO/RCED-86-51FS, November 1985) and Environment and Workers Could Be Better Protected at Ohio Defense Plants (GAO/RCED-86-61, December 1985)

In these reports, prepared at your request, we assessed a number of environmental issues at three DOE plants--Fernald, Mound, and Portsmouth--in Ohio. We found that during the 1970's, DOE considered closing the antiquated Fernald facility. As a result, it did not make capital improvements, and equipment deteriorated. In the early 1980's, DOE's production goals increased, putting a strain on the plant's resources. According to DOE documents, Fernald's management emphasized production over environmental concerns, and between September and December 1984, the plant released about 273 pounds of slightly-enriched uranium into the air. In addition, DOE's inattention to appropriate controls over water runoff from the plant resulted in uranium contamination in three off-site wells, one of which was used for drinking water.

Further, between 1959 and 1969, DOE's Mound facility released large quantities of radioactive tritium into the air and water. In 1970, Mound found tritium contamination in a community drinking water aquifer. At that time, the concentration was within standards, but in 1976 the standards changed, and Mound instituted dilution activities for the aquifer, which are continuing today. Because our work validated previous recommendations that DOE had not adopted, we again made recommendations to DOE concerning radiological monitoring guides and independent verification of contractor data. DOE concurred with our recommendations and expects to have them implemented this year.

Impact of Savannah River Plant's Radioactive Waste Management Practices (GAO/RCED-86-143, July 1986)

This report represented a site-wide assessment of radioactive waste management practices at DOE's Savannah River facility. Although we did not identify any off-site contamination above applicable standards, we found that DOE's operations at that facility have caused extensive on-site groundwater and soil contamination--some of which DOE may never be able to rectify. For example, plant operations have contaminated streams on the plant site; the radioactive contamination in one stream was about 750 times greater than drinking water standards. They have also contaminated groundwater--some concentrations were about 116,000 times greater than drinking water standards. In addition, leaks from high-level waste storage tanks have contaminated about 30,000 square feet of soil underlying the tanks. As a result of the contamination at the facility, the possibility exists that some radioactive contamination could reach the Tuscaloosa aquifer. In addition, because of the extensive contamination, institutional controls and oversight at the facility may be needed for hundreds of years.

Environmental Issues at DOE's Nuclear Defense Facilities (GAO/RCED-86-192, September 1986)

This report examined environmental conditions at nine DOE facilities nationwide and found that groundwater and soil have been contaminated at most of these facilities. At eight facilities, the groundwater has been contaminated to high levels with hazardous and/or radioactive material (attachment I). For example, DOE facilities in Colorado, South Carolina, and Tennessee contaminated the groundwater with solvents (cleaning agents) that are as much as 1,000 times above proposed drinking water standards. Other DOE facilities in South Carolina and Washington State contaminated the groundwater with radioactive materials that are more than 400 times greater than drinking water standards. At Mound and Fernald in Ohio, the contamination has migrated off-site into drinking water supplies--both a well and an aquifer. In addition, DOE's Savannah River operations have contaminated a drinking water aquifer underlying the site. State officials are concerned that the existing contamination may pose a public health threat and that DOE is adding to the contamination by continuing to discharge radioactive and hazardous material into the environment.

DOE's operations had also contaminated soil at six facilities (attachment II). At some sites--the Y-12 plant in Oak Ridge, Tennessee, Mound and Fernald in Ohio, and Rocky Flats in Colorado--the contamination had migrated off-site. Of the off-site contamination problems, the Y-12 plant poses a significant public health threat. Mercury from that plant's operations contaminated a stream bed and a flood plain. In some locations, the contamination is greater than 2,000 times background levels and over 150 times greater than the state's public health guidelines. To make matters worse, contaminated soil from the flood plain was used in various construction projects around the town of Oak Ridge. In addition, off-site plutonium contamination of the soil at Mound may endanger public health if it is disturbed.

Although DOE has projects underway to clean up both the groundwater and soil contamination at a few facilities, it continues to study the extent, type, and movement of the contamination at other facilities. However, these problems have existed for many years--some for as long as 20 years. Therefore, we recommended that DOE develop an overall groundwater and soil protection strategy to provide the Congress and the public a better perspective on the environmental risks associated with DOE's facilities.

We also found that four DOE facilities are not in full compliance with the Clean Water Act. For example, in 1980 the state required DOE to construct four new projects at the Fernald, Ohio, plant in order to meet Clean Water Act requirements. As of March 1987, one of these projects had not been completed. In addition, DOE believes that one project may not adequately treat the waste in the manner originally anticipated, thus DOE may have to take additional actions to bring Fernald into full compliance with the Clean Water Act.

With regard to the Resource Conservation and Recovery Act, we noted that none of the nine facilities has received a final permit. This act requires that waste be appropriately protected, from generation through its ultimate disposal, primarily to prevent groundwater contamination. Until DOE's facilities receive the required permits, which could take many years, they continue to dispose of waste in a manner that may add to groundwater contamination. As a result, we recommended that DOE develop a comprehensive plan that sets out its plans, milestones, and cost estimates to bring its facilities into full compliance with applicable environmental laws and provide the Congress and public assurance that the waste will be disposed of in an environmentally acceptable manner. We also recommended that DOE allow outside, independent inspection of the disposal practices used for any waste DOE self-regulates.

Unresolved Issues Concerning Hanford's Waste Management Practices
(GAO/RCED-87-30, November 1986)

We found that DOE's Hanford, Washington, facility discharged liquid waste directly into the soil, although federal and state regulators would not allow private entities to do this without protective liners and proper monitoring. For example, in 1985, Hanford disposed of over 25 million gallons of contaminated (both radioactive and hazardous) waste to an unlined disposal site and did not meet groundwater monitoring requirements for the site. Hanford instituted changes in July 1986 to reduce the level of contamination in the waste discharged and plans further changes--expected to be in place by 1989--to its operations to lessen the problem. Until this system is in place, Hanford could continue to discharge contaminated waste into the soil in a manner that may not comply with environmental laws.

We also found that Hanford had been slow to identify all units that should be regulated under the Resource Conservation and

Recovery Act, and it has not identified all potential Comprehensive Environmental Response, Compensation, and Liability Act ("Superfund") sites that may require corrective actions. As a result, Hanford does not know, nor can it ensure the regulatory agencies, that it manages and disposes of waste in compliance with these environmental waste statutes. Therefore, we recommended that DOE identify all current and previously-used waste treatment, storage, and disposal sites, and the corrective actions required for each. DOE concurred with this recommendation and expects to complete this effort by August 1987.

DOE's Transuranic Waste Disposal Plan Needs Revision (GAO/RCED-86-90, March 1986)

In this report, we discussed the disposal of transuranic waste that DOE generates at many facilities across the country. Transuranic waste--discarded tools, rags, and paper, containing man-made radioactive elements--remains dangerous for thousands of years and presents a health hazard if inhaled, ingested, or absorbed into the body through an open wound. Although DOE has a multi-billion dollar effort to put this waste 2,150 feet underground in a geological repository in New Mexico, it only expects to send about 19 percent of the existing waste there. DOE has made no commitment regarding the permanent disposal of the remaining 81 percent that is currently at six locations around the country. Since this waste is only a few feet underground (25 feet below the surface at most), it can pose environmental and/or health problems if it is disturbed or if it migrates. If DOE ultimately decides to keep this waste in place, it may have to institute remedial actions to immobilize the waste to ensure it does not migrate to the groundwater and/or contaminate adjacent soil. Since DOE has not addressed these issues, we recommended that it provide the Congress with complete information on its plans and costs to permanently dispose of this waste. DOE concurred with the recommendation and expects to complete a report on these issues by June 1987.

FUTURE COSTS UNCERTAIN BUT WILL BE IN THE BILLIONS

The cost of dealing with environmental problems at DOE facilities will be substantial. Because so many uncertainties exist--DOE has not fully identified its problems and/or the solutions to correct them--the total cost estimates to address the environmental concerns are not known. However, it will take billions of dollars for DOE to comply with environmental laws. In addition, DOE plans to spend billions of dollars to dispose of high-level and transuranic waste in geologic repositories. To provide a perspective of some identified costs to date, we have summarized some examples from our previously issued reports.

At three facilities we reviewed (Fernald and Mound in Ohio and Y-12 in Tennessee), DOE plans to spend over $60 million to bring them into compliance with the Clean Water Act. In addition, to get final Resource Conservation and Recovery Act permits for nine facilities, DOE plans to change its disposal operations at an estimated cost of $200 million.

The eventual cost for corrective actions at all of DOE's facilities will be much higher, depending on the site-specific environmental problems that DOE will have to resolve. For example, DOE is studying ways to reduce, eliminate, or recycle low-level radioactive liquid waste rather than discharge it directly into the soil. One study conducted at Hanford estimates that alternative disposal methods could cost up to $500 million. Further, groundwater cleanup and monitoring costs can easily amount to hundreds of millions of dollars at a single site. In addition, DOE may have to modify existing facilities to meet requirements under the Clean Water Act. For example, it is examining alternatives to reduce the temperature of the water discharged from the N-reactor. One alternative is estimated to cost $150 million.

With regard to radioactive waste disposal, DOE expects to spend over $4.6 billion to dispose of about 19 percent of its transuranic waste in a geologic repository. DOE officials could not provide cost estimates for the permanent disposal of the remaining 81 percent but believe the costs could be substantial, depending on the disposal method selected. In addition, DOE estimates it will cost from $491 million to $6.4 billion (depending on the method selected) to dispose of high-level radioactive waste from 149 single-walled tanks at Hanford.

In summary, although a complete estimate is not available, the eventual cost to bring the DOE facilities into full compliance with environmental laws and to dispose of waste will clearly be in the billions of dollars.

SUMMARY

In testimony given last Thursday, Mr. J. Dexter Peach called for an overall strategic plan for the entire DOE nuclear defense complex that sets forth the following: projected facility requirements for continued nuclear weapons production; a comprehensive picture of the environmental, safety, and health issues facing DOE; and solutions to resolve them. In my testimony today, I am reiterating the need for two environmental actions that we have previously recommended to DOE. These items would be an integral part of this overall strategic plan. They are (1) an overall groundwater and soil protection strategy and (2) a comprehensive plan to bring DOE facilities into full compliance with environmental laws.

DOE has accepted these recommendations, but we do not know when they will be fully implemented. I hope that the Committee has the opportunity to explore with DOE officials at these hearings when our recommendations will be fully implemented. Only then will the Congress and the public have a clear understanding of the environmental risks associated with operating DOE's nuclear defense activities.

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This concludes my testimony. We would be pleased to respond to any questions you or Members of the Committee may have.

Groundwater Contamination at Selected DOE Facilities[a]

Facility	Major type(s) of contamination	Level of contamination
Feed Materials Production Center, Ohio	nitrates and chloride	Nitrates and chloride have been reported above drinking water standards.
Fuel fabrication plant, South Carolina	solvents[b] and nitrates	Solvents have been reported at levels over 30,000 times the proposed drinking water standards. Nitrates have been reported at levels over 10 times the drinking water standards.
Los Alamos National Laboratory, New Mexico	none[c]	No contaminants resulting from the laboratory's operations have been reported that exceed drinking water standards.
Mound Laboratory, Ohio	tritium[d]	Although in 1976 tritium concentrations were above the drinking water standards, continual remedial actions keep the levels below the standards.
N-Reactor, Washington State	strontium-90,[e] tritium, and nitrates	Strontium-90 has been detected at levels over 400 times higher than the drinking water standards. Tritium and nitrates are slightly above drinking water standards.
Rocky Flats plant, Colorado	solvents, cadmium, and selenium	Solvents have been reported as high as 1,000 times the proposed drinking water standards. Cadmium and selenium have been detected at or slightly above the drinking water standards.
Reprocessing plant, South Carolina	tritium, nitrates, and mercury	Tritium has been reported over 2,500 times the drinking water standards. Nitrates and mercury have been detected at levels slightly above drinking water standards.
Reprocessing plant, Washington State	tritium, iodine-129,[f] and nitrates	Tritium concentrations have been reported over 25 times higher than the drinking water standards. Iodine-129 and nitrates have both been reported above the drinking water standards.
Y-12 plant, Tennessee	Solvents, nitrates, mercury, arsenic, and chromium	Solvents have been detected over 1,000 times greater than proposed drinking water standards. Nitrate concentrations have been reported at levels 1,000 times the drinking water standards. Mercury has been detected at levels 500 times the drinking water standards. Arsenic has been detected at levels 60 times the drinking water standards. Chromium has been detected at levels over 30 times the drinking water standards.

[a] The table shows only major contaminants (e.g., those that exceed existing and/or proposed drinking water standards). At many facilities other contaminants are in the groundwater above background levels.

[b] Solvents are cleaning agents, such as trichloroethylene; 1,1,1, trichloroethane, and/or tetrachloroethylene. These are classified as hazardous waste and toxic pollutants.

[c] According to DOE, at this facility arsenic and flouride occur naturally in the groundwater.

[d] Tritium is a radioactive isotope of hydrogen. It has a half-life of 12.5 years.

[e] Strontium-90 is a radioactive isotope of strontium with a half-life of 30 years.

[f] Iodine-129 is a radioactive isotope of iodine with a half-life of over 15 million years.

Soil Contamination at
Selected DOE Facilities

Facility	**Description of unplanned soil contamination**
Feed Materials Production Center, Ohio	Elevated levels of uranium both on- and off-site. Data indicate that elevated levels are, in some places, more than 10 times background levels.
Mound Laboratory, Ohio	Elevated levels of plutonium both on- and off-site. Data indicate that the levels are, in some instances, more than 100 times background levels.
Rocky Flats plant, Colorado	Elevated levels of plutonium both on- and off-site. Data indicate that the levels are, in some places, more than 50 times background levels.
Reprocessing plant, South Carolina	Elevated levels of plutonium on-site. Levels recorded were slightly higher than 10 times background levels. Soil under a high-level waste tank has become radioactive.
Reprocessing plant, Washington State	Soil under some high-level waste tanks has become radioactive.
Y-12 plant, Tennessee	Off-site mercury contamination greater than 2,000 times background levels has been recorded.

GAO
United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

August 14, 1987

The Honorable John Glenn
Chairman, Committee on Governmental
Affairs
United States Senate

Dear Mr. Chairman:

On June 1, 1987, you requested GAO to answer five questions as a follow-up to your March 1987 hearing on environmental and safety aspects of DOE's nuclear defense complex. The first four questions, because of their legal nature, have been forwarded to our Office of General Counsel. They will respond to these questions in a separate letter.

The remaining question asked for evidence in our possession confirming the extent, source, and location of tritium groundwater contamination at the Hanford reservation. In this regard, I would like to call your attention to the enclosed Pacific Northwest Laboratory's report, "Groundwater Monitoring at the Hanford Site, January - December 1984," dated September 1985. This report shows extensive tritium groundwater contamination at the Hanford reservation--see pages 19 through 23. Also enclosed are two reports on environmental surveillance and monitoring. These reports provide additional information on groundwater contamination at Hanford.

If you would like to discuss this information in further detail, please contact Keith O. Fultz on 275-1441.

Sincerely yours,

J. Dexter Peach
Assistant Comptroller General

Enclosures - 3

The reports referred to have been retained in the Committee files.

Attorney General
Anthony J. Celebrezze, Jr.

WRITTEN TESTIMONY

OF

OHIO ATTORNEY GENERAL

ANTHONY J. CELEBREZZE, JR.

BEFORE

SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS

SENATOR JOHN H. GLENN, CHAIRMAN

DIRKSEN SENATE OFFICE BUILDING, ROOM 342

WASHINGTON, D.C.

9:30 A.M.

MARCH 17, 1987

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE. I AM ANTHONY J. CELEBREZZE, JR., ATTORNEY GENERAL FOR THE STATE OF OHIO. I AM GRATEFUL FOR THIS OPPORTUNITY TO BE WITH YOU TODAY AND FOR YOUR OVERSIGHT HEARING INTO THE NUMEROUS AND SIGNIFICANT ENVIRONMENTAL PROBLEMS WE FACE AS A RESULT OF THE NON-COMPLIANCE BY CERTAIN FEDERAL FACILITIES WITH THE ENVIRONMENTAL RULES AND REGULATIONS THAT ALL OTHER FACILITIES MUST FOLLOW. I ASK THAT BOTH MY TESTIMONY AND THE PREPARED STATEMENT I HAVE SUBMITTED BE MADE A PART OF THE OFFICIAL RECORD OF THE COMMITTEE.

THE PROGRESS MADE IN THE PROTECTION OF OUR ENVIRONMENT OVER THE LAST TWENTY YEARS HAS TAUGHT US THE IMPORTANCE OF STRONG ENVIRONMENTAL LAWS WHICH ARE ADMINISTERED AND ENFORCED BY A STRONG AND INDEPENDENT REGULATORY AGENCY. EXPERIENCE HAS PROVEN THAT THE VIGILENCE OF AN INDEPENDENT REGULATOR IS AN INDISPENABLE INGREDIENT OF AN EFFECTIVE ENVIRONMENTAL PROTECTION PROGRAM. THE PRIVATE SECTOR AS WELL AS STATE AND LOCAL GOVERNMENTS HAVE LEARNED TO LIVE WITH, AND ADJUST TO, AN INDEPENDENT ASSESSMENT OF THEIR COMPLIANCE WITH THE STATUTES PASSED BY THE CONGRESS AND THE STATES. THOSE THAT DO NOT COMPLY WITH OUR ENVIRONMENTAL LAWS ARE FACED WITH THE PROSPECT OF STRONG ENFORCEMENT ACTION BY THE REGULATORY AGENCY, INCLUDING THE ASSESSMENT OF FINES AND/OR PENALTIES COMMENSURATE WITH THE DEGREE OF WRONGDOING. THIS REALITY AND THE PRINCIPLE OF CHECKS AND BALANCES ARE NOW ACCEPTED FACTS OF LIFE FOR ALL SEGMENTS OF OUR SOCIETY, EXCEPT ONE.

THAT EXCEPTION TO THE RULE IS FACILITIES OWNED AND OPERATED BY THE FEDERAL GOVERNMENT, PARTICULARLY THE DEPARTMENT OF ENERGY. D.O.E. HAS TAKEN THE POSITION THAT IT, AND IT ALONE, DETERMINED WHETHER IT HAS COMPLIED WITH APPLICABLE ENVIRONMENTAL STANDARDS. WHILE D.O.E., UNDER PRESSURE FROM CONGRESS, THE STATES, AND CITIZEN GROUPS, NOW PAYS LIP SERVICE TO SOME OF THE ENVIRONMENTAL LAWS, ITS COMPLIANCE WITH THOSE LAWS FALLS FAR SHORT OF AN ACCEPTABLE STANDARD. WITH THE SUPPORT OF THE JUSTICE DEPARTMENT, D.O.E. HAS ARGUED THAT IF ITS ACTIONS FAIL TO MEET THE STANDARDS MANDATED BY CONGRESS, NO ONE, AND I REPEAT THAT, NO ONE, -- NOT EVEN THE U.S. ENVIRONMENTAL PROTECTION AGENCY -- MAY SEEK TO IMPOSE PENALTIES UPON FOR THOSE VIOLATIONS. IT IS APPARENTLY D.O.E.'S POSITION THAT, UNLIKE THE REST OF OUR SOCIETY, D.O.E. NEED ACCOUNT ONLY TO ITSELF FOR ITS RECORD OF ENVIRONMENTAL CONTAMINATION AND HOW IT SHOULD BE

ADDRESSED. PERHAPS MOST DISTRESSING OF ALL, HOWEVER, IS THAT D.O.E. IS SUPPORTED IN THIS POSITION BY THE UNITED STATES ATTORNEY GENERAL AND THE PRESIDENT.

WHILE D.O.E.'S RATIONALE IS INDEFENSIBLE TO ME, IT IS MADE EVEN MORE REPREHENSIBLE BY THE HISTORY OF CARELESS -- SOMETIMES RECKLESS -- OPERATION OF D.O.E.'S FACILITIES IN OHIO WHICH OPERATE IN SERIOUS VIOLATION OF BOTH STATE AND FEDERAL ENVIRONMENTAL LAWS. IN FACT, D.O.E.'S RECORD OF NON-COMPLIANCE AND ITS ATTITUDE TOWARD COMPLIANCE HAS BEEN AS BAD AS THE WORST PRIVATE SECTOR VIOLATORS I HAVE ENCOUNTERED DURING MY TENURE AS ATTORNEY GENERAL OF OHIO. D.O.E.'S TRACK RECORD OF NON-COMPLIANCE AT ITS OHIO FACILITIES, AND ITS POSITION THAT, UNLIKE THE REST OF SOCIETY ITS CONDUCT IS NOT SUBJECT TO THE INDEPENDENT REVIEW OF U.S. EPA AND STATE ENVIRONMENTAL AGENCIES CONSTITUTES THE ULTIMATE HYPOCRISY.

THIS IS ESPECIALLY TRUE GIVEN THE FEDERAL GOVERNMENT'S RELIANCE ON PENALTIES TO ACHIEVE COMPLIANCE BY STATE AND MUNICIPAL GOVERNMENTS WITH FEDERAL GOVERNMENT LAWS. JUST TO USE ONE EXAMPLE OF THIS POLICY, I REFER YOU TO A U.S. EPA MEMO FROM AUGUST, 1983, DISCUSSING ITS "...CONSIDERABLE ENFORCEMENT EXPERIENCE UNDER THE NATIONAL MUNICIPAL POLICY" AS IT RELATES TO WATER POLLUTION AND TREATMENT FACILITIES:

> "WE (THE U.S. EPA) TYPICALLY EXPECT TO OBTAIN PENALTIES IN PUBLICLY OWNED TREATMENT WORKS (POTW) CASES. PENALTIES ACT AS A SUBSTANTIAL DETERRENT TO NON-COMPLIANCE AND SPEED THE MUNICIPALITIES EFFORTS TO COMPLY." (EMPHASIS ADDED)

I COULDN'T AGREE MORE WITH THAT STATEMENT, AND THE SAME PHILOSOPHY SHOULD HOLD TRUE FOR THE FEDERAL FACILITIES AND AGENCIES WE ARE DISCUSSING TODAY.

IN OHIO WE HAVE THREE OF THE TWENTY-THREE D.O.E. FACILITIES. OUR EXPERIENCE VIVIDLY ILLUSTRATES THE NEED FOR INDEPENDENT REGULATORY SUPERVISION OF COMPLIANCE WITH ENVIRONMENTAL STANDARDS. THE THREE FACILITIES ARE THE FEED MATERIALS PRODUCTION CENTER NEAR FERNALD, OHIO, THE MOUND FACILITY IN MIAMISBURG, (BOTH IN THE SOUTHWESTERN PART OF THE STATE), AND THE PORTSMOUTH URANIUM ENRICHMENT COMPLEX AT PIKETON, IN SOUTHERN OHIO.

FERNALD

JUST OVER A YEAR AGO, ON BEHALF OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY, I FILED A $200 MILLION LAWSUIT AGAINST THE DEPARTMENT OF ENERGY AND THE CONTRACTOR OPERATING THE FERNALD FACILITY, CHARGING THEM WITH 27 COUNTS OF VIOLATING THE STATE'S HAZARDOUS WASTE AND WATER POLLUTION LAWS, CONTAMINATING AREA GROUNDWATER AND THE CARELESSLY DISPOSING OF RADIOACTIVE WASTE.

THE FERNALD PLANT PROCESSES URANIUM INTO URANIUM FUEL FOR USE IN NUCLEAR WEAPONS PRODUCTION, AND OTHER ACTIVITIES. BECAUSE THE WASTE BYPRODUCT OF THIS PROCESS IS HIGHLY DANGEROUS, SAFE METHODS FOR HANDLING THIS WASTE ARE EXTREMELY CRITICAL. WHAT WE HAVE LEARNED IN THE COURSE OF OUR INVESTIGATION AND LITIGATION REVEALS SERIOUS VIOLATIONS OF STATE AND FEDERAL LAWS D.O.E. HAS BEEN AVOIDING FOR MANY YEARS. IN FACT, A REPORT PREPARED BY THE U.S. GEOLOGICAL SURVEY IN 1951 WARNED D.O.E.'S PREDECESSOR, THE ATOMIC ENERGY COMMISSION, THAT, DUE TO THE HYDROGEOLOGY OF THE AREA, SEVERE GROUNDWATER POLLUTION COULD OCCUR IF WASTES WERE NOT HANDLED CAREFULLY. THIS REPORT, WRITTEN BEFORE THE FMPC EVEN BEGAN OPERATION, CONTAINED THE FOLLOWING ADMONITION:

> THE DANGER EXISTS THAT THE PLANT'S WATER SUPPLY IF DEVELOPED LOCALLY, MIGHT BE RENDERED UNFIT FOR USE AND THAT OTHER WATER SUPPLIES IN THE AREA MIGHT BE DAMAGED IF THE WASTES ARE NOT HANDLED CAREFULLY."

UNFORTUNATELY, THESE THIRTY YEAR OLD WARNINGS AND CAUTIONS PROVED TO BE PROPHETIC, AND THE GROUNDWATER IN THE AREA IS CONTAMINATED AND SOME PRIVATE WELLS HAVE BEEN RENDERED USELESS. INDEED, RATHER THAN IMPLEMENTING CAUTIOUS WASTE DISPOSAL PRACTICES AS RECOMMENDED BY THE USGS REPORT, D.O.E.'S WASTE HANDLING PRACTICES HAVE BEEN TOTALLY INAPPROPRIATE AND HAVE CONTRIBUTED TO THE CONTAMINATION.

FOR EXAMPLE, DOCUMENTS WHICH HAVE BEEN ACQUIRED IN OUR LAWSUIT HAVE DISCLOSED THAT THE LINERS IN WASTE PIT NO. 5 HAVE BEEN TORN ON AT LEAST THREE OCCASIONS IN 1981, 1982 AND 1986. WASTE PIT NO. 5 IS USED FOR THE STORAGE OF PROCESS WATER WHICH HAS BEEN CONTAMINATED WITH RADIOACTIVE MATERIAL. WHILE THE TEARS WERE EVENTUALLY REPAIRED, IT IS HIGHLY LIKELY THAT RADIOACTIVE WASTEWATER ESCAPED INTO THE GROUNDWATER AS A RESULT OF EACH TEAR.

EVEN MORE SERIOUS, HOWEVER, IS THE INFORMATION WHICH WE

DISCOVERED JUST LAST MONTH. APPARENTLY THERE WAS AN OLD ABANDONED WELL IN THE AREA NOW USED FOR WASTE PIT NO. 5. LAST MONTH, D.O.E. ADMITTED THAT IT HAS NO EVIDENCE THAT IT EVER PLUGGED THE WELL BEFORE INSTALLING THE RADIOACTIVE WASTEWATER PIT. OBVIOUSLY, THE APPARENT FAILURE TO SEAL OFF THE WELL BEFORE INSTALLING A PIT FOR THE STORAGE OF RADIOACTIVE WATER ISWHOLLY UNACCEPTABLE.

GROUNDWATER CONTAMINATION AT THE FMPC HAS RESULTED NOT ONLY FROM THE LEAKAGE OF RADIOACTIVE AND HAZARDOUS WASTE FROM THE PITS, BUT ALSO FROM OTHER SOURCES AS WELL. SINCE THE 1950'S, THE FMPC HAS RELEASED TONS OF URANIUM DUST INTO THE AIR THROUGH ITS SMOKESTACKS. MUCH OF THIS URANIUM HAS FALLED ONTO THE SOIL AT THE FMPC AND HAS BEEN WASHED BY RAINFALLS INTO PADDY'S RUN. BECAUSE PADDY'S RUN RECHARGES THE GROUNDWATER, THE RADIOACTIVE URANIUM HAS ENTERED THE GROUNDWATER.

IN 1980, A WATER POLLUTION PERMIT WAS ISSUED FOR THE FMPC. HAD D.O.E. COMPLIED WITH THIS PERMIT, SOME OF THE GROUNDWATER CONTAMINATION PROBLEMS AT THE FMPC WOULD HAVE BEEN SOLVED. THE PERMIT ESTABLISHED A 1984 DEADLINE FOR D.O.E. TO CONSTRUCT, A BASIN TO CATCH THE STORMWATER RUNOFF FROM THE SITE, THUS PREVENTING URANIUM AND OTHER POLLUTANTS FROM REACHING PADDY'S RUN. HOWEVER, D.O.E. REFUSED TO CONSTRUCT THE BASIN FOR YEARS, CONTENDING THAT IT DID NOT HAVE THE FUNDS.

WHEN D.O.E. FINALLY GOT AROUND TO BEGINNING TO BUILD THE BASIN, IT STARTED CONSTRUCTION WITHOUT FIRST OBTAINING OHIO EPA APPROVAL OF ITS PLANS, THUS COMPOUNDING ITS FAILURE TO MEET THE DEADLINE FOR BUILDING THE BASIN WITH A VIOLATION OF OHIO'S PLAN APPROVAL REQUIREMENTS. IN ADDITION, THE BASIN WAS MADE TOO SMALL TO CAPTURE ALL OF THE STORMWATER RUNOFF. NOT ONLY DID D.O.E. ORGINALLY INTENDED TO BUILD A BASIN THAT WOULD ONLY SOLVE A PORTION OF THE STORMWATER RUNOFF PROBLEM, BUT D.O.E. HAS ALSO RECENTLY ADMITTED THAT AN ENGINEERING MISTAKE CAUSED THE BASIN TO BE EVEN SMALLER THAN D.O.E.'S ORIGINAL UNACCEPTABLE DESIGN.

THE 1980 WATER POLLUTION PERMIT ALSO REQUIRED D.O.E. TO INSTALL OTHER POLLUTION CONTROL EQUIPMENT, KNOWN AS BIODENITRIFICATION FACILITIES, TO TREAT THE ENORMOUS AMOUNTS OF NITRATES WHICH HAVE BEEN POLLUTING THE GREAT MIAMI RIVER AND THE GROUNDWATER. AGAIN, D.O.E. INSISTED THAT IT DID NOT HAVE THE FUNDS TO INSTALL THE EQUIPMENT. ALTHOUGH D.O.E. HAS RECENTLY BEGUN WORKING ON THE

FACILITIES, IT STILL IS NOT IN COMPLIANCE MORE THAN THREE YEARS AFTER THE DEADLINE.

MOREOVER, A PART OF THE BIODENTRIFICATION FACILITIES WHICH HAS BEEN BUILT IS ALREADY MALFUNCTIONING, EVEN THOUGH ITS USE IS ONLY IN THE EXPERIMENTAL STATE. THIS MALFUNCTIONING DEVICE IS A LAGOON DESIGNED TO HOLD WASTEWASTER FOR TREATMENT. UNFORTUNATELY, THE LINER ALREADY HAS NUMEROUS LEAKS AND TEARS, CAUSING THE LAGOON TO LEAK PROFUSELY.

THEREFORE, D.O.E.'S WATER POLLUTION AT THE FMPC HAS BEEN, AND CONTINUES TO BE, SYMPTOMATIC OF POOR MANAGEMENT. D.O.E.'S WATER POLLUTION CONTROL PRACTICES HAVE BEEN SO DEFICIENT THAT ON MARCH 6TH, THE OHIO EPA ISSUED ADMINISTRATIVE ORDERS REQUIRING D.O.E. TO COMPLETELY REVISE ITS WATER POLLUTION CONTROL PRACTICES.

AS I PREVIOUSLY NOTED, THE SUIT FILED LAST MARCH CHARGED D.O.E. AND THE CONTRACTOR WITH VIOLATING HAZARDOUS WASTE REGULATIONS AND WATER POLLUTION LAWS. UNFORTUNATELY, THE STORY DOESN'T STOP THERE.

D.O.E.'S FERNALD FACILITY HAS ALSO BEEN AN IRRESPONSIBLE SOURCE OF RADIOACTIVE AIR POLLUTANTS FOR MORE THAN THREE DECADES. MANY RELEASES RESULTED FROM LESS-THAN-ADEQUATE MAINTENANCE OF AIR POLLUTION CONTROL EQUIPMENT AT THE FACILITY. FOR EXAMPLE, IN 1984 A BAGHOUSE DESIGNED TO PREVENT URANIUM FROM ESCAPING TO THE AIR MALFUNCTIONED, SETTING OFF AN ALARM. THE RESPONSE OF THE FACILITY WAS NOT TO FIX THE BAGHOUSE, BUT INSTEAD TO RECALIBRATE THE ALARM SO IT WOULD NO LONGER SOUND WHEN THE URANIUM RELEASES OCCURRED.

IN LIGHT OF THESE HISTORICAL OCCURRENCES, TOMORROW I WILL FILE ANOTHER LAWSUIT AGAINST D.O.E. AND ITS NEW CONTRACTOR, THIS TIME INVOLVING UNLAWFUL RELEASES OF RADON GAS AND URANIUM HEXAFLOURIDE LAST SPRING.

THE FERNALD FACILITY HAS TWO LARGE CONCRETE SILOS, 80 FEET IN DIAMETER AND 36 FEET HIGH AT THE CENTER OF THE DOME, HOLDING RADIOACTIVE RADIUM WASTE ORIGINATING FROM THE MANHATTAN PROJECT. IN THE PROCESS OF DECAYING, RADIUM PRODUCES RADON GAS, A RADIOACTIVE AIR POLLUTANT. UNTIL 1979, RADON GAS EMANATING FROM THE RADIUM WAS ALLOWED TO ESCAPE FREELY THROUGH VENTS IN THE SILO DOME. IN 1979, THE DOME VENTS WERE SEALED WITH COVERS TO REDUCE THE RADON EMISSIONS. HOWEVER, CRACKS IN THOSE COVERS ALLOWED THE EMISSIONS TO CONTINUE.

IN APRIL 1986, A CONTRACTOR FOR THE DEPARTMENT OF ENERGY BEGAN TO APPLY A WEATHERPROOFING COATING TO THE DOMES. AIR PRESSURE WITHIN THE SILOS FORCED RADON THROUGH THE COATING, EXPOSING THE WORKERS TO RADIATION AND HALTING THE COATING PROCESS. THROUGH AN INCREDIBLY BUNGLED SERIES OF ACTIONS AND NON-ACTIONS, THE DECISION WAS MADE TO RELIEVE THE INTERNAL PRESSURE BY VENTING THE RADON GAS. IN OTHER WORDS - RELEASE THE VERY GAS WHICH THEY WERE TRYING TO SEAL IN.

THIS VENTING OCCURRED FOR APPROXIMATELY FOUR HOURS AND INCREASED THE CONCENTRATIONS OF RADON IN THE AIR NEAR THE SILOS. I AM SUBMITTING COPIES OF TWO PAGES FROM A DEPARTMENT OF ENERGY INTERNAL INVESTIGATION REPORT COMPARING RADON LEVELS NEAR THE SILOS ON APRIL 25, 1986 WITH THE RADON CONCENTRATIONS RECORDED ON APRIL 24, ONE DAY BEFORE THE VENTING.

BY RELEASING THE RADON FROM THE SILOS, WESTINGHOUSE DISREGARDED TWO OHIO EPA AIR POLLUTION PERMITS FOR THE FACILITY AND ALSO IGNORED A REQUIREMENT THAT THEY REQUEST PERMISSION FROM THE OHIO EPA PRIOR TO THIS VENTING. WHAT IS EVEN WORSE IS THAT THEY DID NOT EVEN BOTHER TO REPORT THE INCIDENT TO THE AGENCY UNTIL MORE THAN A FULL DAY HAD PASSED.

THE SECOND MAJOR PORTION OF THIS NEW LAWSUIT CONCERNS A RELEASE OF URANIUM HEXAFLOURIDE FROM A REACTOR VESSEL AT THE FMPC. THIS GAS WAS RELEASED THROUGH A CRACK WHICH DEVELOPED IN THE VESSEL DUE TO CONSISTENT OPERATION OF THE VESSEL AT ABNORMALLY HIGH TEMPERATURES, AS WELL AS POOR DESIGN OF THE VESSEL. ALARMS DESIGNED TO WARN VESSEL OPERATORS OF THE RELEASE FAILED TO ACTIVATE DUE TO LACK OF MAINTENANCE. IMPROPER OPERATING PROCEDURES AND INEFFECTIVE ALARMS ARE VIOLATIONS OF AN OHIO EPA AIR POLLUTION PERMIT FOR THE REACTOR VESSEL. ONCE AGAIN, D.O.E. AND WESTINGHOUSE DID NOT BOTHER TO REPORT THE RELEASE TO OHIO EPA UNTIL THE NEXT DAY.

IT SHOULD BE NOTED THAT THE SILOS ARE LOCATED NEAR THE WESTERN BOUNDARY OF THE FACILITY, VERY CLOSE TO SEVERAL HOMES. FORTUNATELY THE WIND WAS BLOWING AWAY FROM THE HOMES THAT DAY.

WHEN WESTINGHOUSE REPLACED NLO, INC. AS THE OPERATOR OF THE FEED MATERIALS PRODUCTION CENTER, IT WAS MY HOPE THAT THE CHANGE WOULD RESULT IN IMPROVED COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS AT THE FACILITY. AS A RESULT, THE RADON RELEASES ARE VERY DISAPPOINTING.

I BELIEVE THAT ONE OF THE REASONS FOR THIS FAILURE CAN BE TRACED TO WESTINGHOUSE'S INITIAL ASSUMPTION OF DUTIES AT THE FACILITY. OTHER THAN SEVERAL UPPER MANAGEMENT EMPLOYEES WHO WERE RELIEVED OF THEIR DUTIES WHEN WESTINGHOUSE ASSUMED RESPONSIBILITY FOR THE FMPC, MOST FORMER NLO PERSONNEL HAVE BEEN RETAINED TO CONTINUE TO OPERATE THE FACILITY. WHILE SOME CONTINUITY OF PERSONNEL WAS NECESSARY TO EFFECTUATE A SMOOTH TRANSITION FROM NLO TO WESTINGHOUSE, MANY OF THE MIDDLE MANAGEMENT EMPLOYEES AT THE FMPC APPARENTLY HAVE NOT BEEN IMPRESSED BY THE LESSONS OF THE PAST. THE RADON RELEASES RESULTED FROM MISCOMMUNICATIONS, LACK OF COORDINATION, AND THE FAILURE TO FOLLOW INTERNAL PROCEDURES AND DIRECTIVES ON THE PART OF MID-LEVEL WESTINGHOUSE MANAGEMENT.

APPARENTLY, NEITHER OF THESE INCIDENTS PHYSICALLY INJURED ANYONE. HOWEVER, BOTH INCIDENTS DAMAGED THE AIR BY INCREASING RADIOACTIVE POLLUTION. FURTHERMORE, THESE INCIDENTS DEMONSTRATE THE DISTURBING LACK OF ATTENTION GIVEN TO THE MANAGEMENT OF DANGEROUS RADIOACTIVE MATERIALS. CONTINUED MISMANAGEMENT COULD CAUSE SERIOUS HARM TO PERSONS, BOTH ON-SITE AND OFF-SITE, WHO ARE AT THE MERCY OF WESTINGHOUSE AND THE DEPARTMENT OF ENERGY.

MOUND FACILITY

MOUND IS A RESEARCH, DEVELOPMENT AND PRODUCTION FACILITY PERFORMING WORK IN SUPPORT OF D.O.E. WEAPONS AND ENERGY PROGRAMS, WITH EMPHASIS ON EXPLOSIVES AND NUCLEAR TECHNOLOGY.

IN LATE 1984, OHIO EPA REQUESTED THAT I ENFORCE SEVERAL HAZARDOUS WASTE REGULATIONS AGAINST THE MOUND FACILITY, LOCATED IN MIAMISBURG, OHIO. AFTER I SENT THE MOUND FACILITY A NOTICE OF INTENT TO FILE SUIT PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT, THE FACILITY CORRECTED ITS VIOLATIONS.

OUR CONCERN AT THE PRESENT TIME IS THE RADIOACTIVE TRITIUM CONTAMINATION AT THIS FACILITY. BEFORE 1970, MOUND DISCHARGED TRITIUM-CONTAMINATED WASTEWATER INTO A DITCH AND CANAL FLOWING TO THE GREAT MIAMI RIVER. TRITIUM FROM THE DITCH AND CANAL SEEPED INTO THE GROUNDWATER UNDER THE FACILITY. MOUND HAS IMPLEMENTED A GROUNDWATER PUMPING PROCESS TO REDUCE THE CONCENTRATIONS OF TRITIUM, BUT SIGNIFICANT POLLUTION STILL REMAINS.

RECENTLY, TRITIUM HAS BEEN DISCOVERED IN GROUNDWATER SEEPING FROM THE SOIL NEAR THE "SW" BUILDING AT MOUND, WHICH WAS ONCE THE

PREDOMINANT SITE OF TRITIUM PROCESSING. CURRENTLY, A SMALLER PROPORTION OF MOUND'S WORK WITH TRITIUM IS PERFORMED AT THIS BUILDING. THE BUILDING PRESENTLY HAS A CONTAINMENT SYSTEM, INCLUDING IMPERMEABLE FLOORS, TO PREVENT THE RELEASE OF TRITIUM. NEVERTHELESS, AT ONE TIME THE SW BUILDING HAD SOME DIRT FLOORS. MOUND PERSONNEL SUSPECT THAT TRITIUM MAY HAVE LEAKED THROUGH THE DIRT FLOORS INTO THE GROUNDWATER. HOWVER, THEY ADMIT THAT THE ORIGIN OF THE TRITIUM IN THE GROUNDWATER SEEPAGES IS STILL UNKNOWN AND REQUIRES FURTHER STUDY.

BECAUSE THE FULL EXTENT OF THIS TRITIUM CONTAMINATION IS NOT KNOWN, I SENT A FREEDOM OF INFORMATION ACT REQUEST TO THE DEPARTMENT OF ENERGY ON JANUARY 21, 1987, SEEKING ALL DOCUMENTS RELATING TO ANY POLLUTION PROBLEM AT MOUND. WE HOPE TO RECEIVE THOSE DOCUMENTS WITHIN THE NEXT MONTH.

PORTSMOUTH URANIUM ENRICHMENT COMPLEX

THE PORTSMOUTH URANIUM ENRICHMENT COMPLEX NEAR PIKETON, OHIO, HAS BEEN IN OPERATION SINCE 1954, ENRICHING URANIUM FOR USE IN NATIONAL DEFENSE AND COMMERCIAL NUCLEAR REACTORS. PREVIOUSLY OPERATED BY GOODYEAR ATOMIC, THE SITE IS NOW OPERATED FOR THE DEPARTMENT OF ENERGY BY MARTIN MARRIETTA.

THE COMPLEX HAS BEEN OUT OF COMPLIANCE WITH STATE AND FEDERAL HAZARDOUS WASTE LAWS SINCE AT LEAST 1981. UNTIL 1984, THE D.O.E. MAINTAINED THAT IT WAS EXEMPT FROM HAZARDOUS WASTE LAWS ON BOTH THE STATE AND FEDERAL LEVELS. FINALLY, ON SEPTEMBER 30, 1986, IT ENTERED INTO AN UNENFORCEABLE FEDERAL FACILITY COMPLIANCE AGREEMENT WITH U.S. EPA TO RESOLVE VIOLATIONS OF FEDERAL LAW. UNFORTUNATELY, HOWEVER, THE AGREEMENT DID NOT ADDRESS NUMEROUS VIOLATIONS OF STATE WATER POLLUTION AND HAZARDOUS WASTE LAWS, AND DID NOT PROVIDE FOR SUBMISSION OF PLANS AND DOCUMENTS TO, NOR INPUT BY, THE STATE OF OHIO.

AS A RESULT, THE OHIO EPA HAS REQUESTED THAT I SEND A NOTICE OF THE STATE'S INTENT TO SUE TO D.O.E. AND ITS CONTRACTORS. I WILL TAKE THIS ACTION TOMORROW.

THE VIOLATIONS OF THE STATE'S HAZARDOUS LAWS ARE NUMEROUS AND SERIOUS. THE FOLLOWING IS A SUMMARY OF THE PROBLEMS PRESENTED BY THIS FACILITY.

HAZARDOUS WASTE AND RADIATION-CONTAMINATED HAZARDOUS WASTE ACTIVITIES AT PORTSMOUTH INCLUDE ILLEGAL DRUM STORAGE, DISPOSAL IN UNPERMITTED LANDFILLS, LAND TREATMENT IN POLLUTING SO-CALLED "BIODEGRADATION PLOTS", UNPERMITTED AND IMPROPER INCINERATION OF LIQUID HAZARDOUS WASTE, AND SEVERAL SLUDGE AND WASTE WATER LAGOONS. MUCH OF THE WASTE AT THE PUEC PLANT IS BOTH RADIOACTIVE AND HAZARDOUS FOR OTHER REASONS, INCLUDING CARCINOGENICITY AND TOXICITY. THESE WASTES HAVE BEEN TREATED, STORED AND DISPOSED OF IN AT LEAST FOUR LOCATIONS IN THE COMPLEX SINCE OHIO'S HAZARDOUS WASTE LAW WAS PASSED. IT IS ALSO KNOWN THAT D.O.E. AND ITS FORMER CONTRACTORS DISPOSED OF HAZARDOUS SUBSTANCES AT OTHER AREAS OF THE FACILITY PROPERTY BEFORE THAT TIME. WHILE GROUNDWATER MONITORING AT PUEC IS INCOMPLETE, THE SAMPLES THAT HAVE BEEN TAKEN SHOW THAT AT LEAST FOUR WASTE SITES HAVE CONTRIBUTED TO CONTAMINATION OF THE UNDERLYING AQUIFER.

TWO UNAPPROVED LANDFILLS AT THE PORTSMOUTH COMPLEX HAVE RECEIVED HAZARDOUS AND RADIOACTIVE WASTE. DURING 1984 AND 1985, 85,000 POUNDS OF HEAVY METALS SLUDGE WERE BURIED IN ONE OF THE LANDFILLS. GROUNDWATER CONTAMINATION BY TRICHLOROETHYLENE (TCE) AND RADIOACTIVITY HAS BEEN DETECTED IN MONITOR WELLS WHICH WERE INSTALLED IN SEPTEMBER, 1985, BUT THE EXTENT OF THE POLLUTION IS NOT PRESENTLY KNOWN. D.O.E. HAS SUBMITTED A PLAN FOR GROUNDWATER ASSESSMENT AND A CLOSURE PLAN FOR THE LANDFILLS, BUT OHIO EPA BELIEVES BOTH PLANS TO BE INADEQUATE. THE PROPOSED CLOSURE FOR THE X-749 LANDFILL, FOR EXAMPLE, PROPOSES ONLY THAT IT BE CAPPED WITH SOIL. OHIO EPA BELIEVES THAT UNLESS OTHER STEPS ARE TAKEN, SUCH AS LEACHATE COLLECTION AND THE INSTALLATION OF GROUNDWATER MIGRATION BARRIERS, HAZARDOUS POLLUTION COULD CONTINUE TO SEEP OUT OF THE BOTTOM AND SIDES OF X-749 INTO OHIO'S GROUNDWATER.

DURING A TEN YEAR PERIOD BEGINNING IN 1974, D.O.E. PURSUED A POLICY OF DISPOSING SOME OF ITS RADIOACTIVE AND SOLVENT-CONTAMINATED WASTE OIL BY ACTUALLY SPREADING IT ON THE GROUND AND THEN ROTO-TILLING IT INTO THE SOIL. ALMOST 50,000 GALLONS OF WASTE WERE DISPOSED OF IN THIS FASHION. SINCE THE SOLVENT AND URANIUM-CONTAMINATED WASTE DOES NOT BREAK DOWN, ALL THAT WAS ACCOMPLISHED WAS BURYING THE PROBLEM AND ITS POTENTIAL HEALTH HAZARD, FOR NOW. THIS IS CLEARLY AN INAPPROPRIATE AND ILLEGAL METHOD OF DISPOSAL. IT ALSO DEMONSTRATES THE IMPORTANCE OF

INDEPENDENT STATE REGULATORY OVERSIGHT AND ENFORCEMENT OF THE LAW.

D.O.E. MAINTAINS TWO LAGOONS WHICH RECEIVE SLUDGE CONTAMINATED WITH CHROMIUM, A TOXIC CORROSION INHIBITOR. DISCHARGES INTO ONE OF THE LAGOONS (NEITHER OF WHICH HAS A HAZARDOUS WASTE PERMIT) ARE CONTINUING. SLUDGE FROM THIS IMPOUNDMENT SPILLED INTO THE SECOND LAGOON IN DECEMBER, 1985, SO THAT THE SECOND IMPOUNDMENT NOW IS ALSO A HAZARDOUS WASTE UNIT. THE SOUTH LAGOON, WHICH IS RECEIVING THE ON-GOING DISCHARGES, IS NOT CONSTRUCTED IN COMPLIANCE WITH STATE REGULATIONS DESIGNED TO PREVENT SPILLS, NOR IS IT DESIGNED TO PREVENT GROUNDWATER POLLUTION. GROUNDWATER MONITORING AT THIS SITE SHOWS INDICATIONS OF CONTAMINATION, BUT A COMPREHENSIVE GROUNDWATER ASSESSMENT IS NECESSARY TO DETERMINE WITH CERTAINTY THE SOURCE AND EXTENT OF THE POLLUTION.

THE HEAVIEST GROUNDWATER CONTAMINATION AT THE PORTSMOUTH COMPLEX HAS OCCURRED IN THE AREA OF A HAZARDOUS WASTE POND USED FOR STORAGE AND TREATMENT OF WATER USED IN REMOVING RADIONUCLIDES FROM EQUIPMENT, AND AT A NEARBY CONTAINMENT AREA FOR RADIOACTIVE MATERIALS DREDGED FROM THE POND. IN 1984, HEAVY TCE CONTAMINATION, ALONG WITH SOME RADIOACTIVITY, WAS DETECTED IN THE AREA OF THE POND; ITS SOURCE IS STILL UNKNOWN.

EXTENSIVE PCB CONTAMINATION INSIDE AND AROUND THE COMPLEX HAS BEEN FOUND SINCE 1983, INCLUDING THE SEWAGE TREATMENT PLANTS AND IN AN EARTHEN DRAINAGE DITCH. IN 1985, PCB CONTAMINATION WAS FOUND IN THE SEDIMENTS OF A CREEK ONE MILE DOWNSTREAM OF THE FACILITY; ITS SOURCE WAS PROBABLY RUNOFF FROM THE DRAINAGE DITCH. CONTAMINATED SOILS HAVE SINCE BEEN REMOVED BY U.S. D.O.E. FROM THE DITCH AND NOW ARE STORED IN APPROXIMATELY 4,800 110-GALLON DRUMS INSIDE THE COMPLEX'S DRUM STORAGE FACILITY.

ON AUGUST 8, 1986, OHIO EPA WAS NOTIFIED THAT LIQUID WASTE OILS AND HAZARDOUS SOLVENTS HAD BEEN ILLEGALLY BURNED IN THE FACILITY'S INCINERATOR. ALTHOUGH D.O.E. FAILED TO ANALYZE THE WASTE WHICH HAD BEEN BURNED, ANALYSES OF WASTE OILS SIMILAR TO THOSE BURNED REVEALED HIGH CONCENTRATIONS OF MERCURY, A SUBSTANCE WHICH IS HIGHLY TOXIC TO HUMANS. THE PRESENCE OF MERCURY IN THE BURNED WASTE IS ESPECIALLY SIGNIFICANT BECAUSE IT WOULD READILY ENTER THE ATMOSPHERE, RATHER THAN BE DESTROYED BY INCINERATION.

IN ADDITION TO THE FOREGOING EXAMPLES OF SPECIFIC HAZARDOUS WASTE AND HAZARDOUS SUBSTANCE VIOLATIONS AT THE PORTSMOUTH COMPLEX, MANY OF THE PLANT'S IMPOUNDMENTS HAVE NOT BEEN EVALUATED TO DETERMINE WHETHER THEY CONTAIN HAZARDOUS WASTES. GENERAL OPERATING RECORDS DOCUMENTING HAZARDOUS WASTE QUANTITIES, PHYSICAL STATES, TREATMENT METHODS, AND HANDLING ARE INCOMPLETE FOR SOME FACILITIES, AND D.O.E. HAS NOT MET STATE REQUIREMENTS FOR PERSONNEL TRAINING, DOCUMENTING INSPECTIONS, MAINTAINING A COMPLETE CONTINGENCY PLAN, OR RECORD KEEPING AND REPORTING OF SAMPLING FROM MONITOR WELLS.

WE WILL WORK FOR SATISFACTORY SOLUTION TO THE PROBLEMS AT ALL THREE FACILITIES, BUT I FEEL STRONGLY THAT THESE SITUATIONS COULD BE EITHER AVOIDED ENTIRELY OR CORRECTED MORE RAPIDLY IF INDEPENDENT REGULATORY AUTHORITY IS GIVEN TO THE U.S. EPA AND THE OHIO E.P.A.

JUSTICE DEPARTMENT POLICY

BEFORE CLOSING, I WOULD LIKE TO SHARE ONE ADDITIONAL ASPECT OF THIS SITUATION WHICH TROUBLES ME -- THAT IS, THE ACTIVE INVOLVEMENT OF THE JUSTICE DEPARTMENT AND THE PRESIDENT IN INSULATING D.O.E. AND OTHER FEDERAL FACILITIES FROM THE CONSEQUENCES OF THEIR FAILURE TO COMPLY WITH THE ENVIRONMENTAL STANDARDS WHICH ARE IMPOSED ON ALL OTHER SEGMENTS OF OUR SOCIETY.

TURNING FIRST TO THE ROLE OF THE JUSTICE DEPARTMENT, THERE ARE THREE SPECIFIC POLICIES WHICH HAVE BEEN ADOPTED BY THE ATTORNEY GENERAL THAT ARE VERY TROUBLING. FIRST, THE JUSTICE DEPARTMENT, IN AN OCTOBER 11, 1983 LETTER TO CONGRESSMAN JOHN DINGELL, DECLARED THAT IT WILL NOT FILE ENFORCEMENT ACTIONS ON BEHALF OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY AGAINST ANY FEDERAL FACILITY FOR VIOLATIONS OF ENVIRONMENTAL LAWS AT THOSE FACILITIES. RELYING UPON A THEORY OF CONSTITUTIONAL LAW WHICH IS QUESTIONABLE AT BEST, THE JUSTICE DEPARTMENT HAS ARGUED THAT THE FAILURE OF FEDERAL FACILITIES TO COMPLY WITH ENVIRONMENTAL STANDARDS IS AN INTRA-EXECUTIVE BRANCH DISPUTE. THE JUSTICE DEPARTMENT SEEMS TO SUGGEST THAT THE REMEDY FOR THESE VIOLATIONS IS JAWBONING WITHIN THE EXECUTIVE BRANCH. THIS APPROACH REDUCES IMPORTANT CONSIDERATIONS OF PUBLIC HEALTH AND THE ENVIRONMENT TO THE LEVEL OF MERE BUREAUCRATIC IN-FIGHTING.

THE SECOND WAY IN WHICH THE JUSTICE DEPARTMENT HAS BECOME AN INTEGRAL COMPONENT IN FEDERAL FACILITIES VIOLATIONS IS THE NATIONWIDE CAMPAIGN WHICH JUSTICE IS CONDUCTING TO PREVENT THE ASSESSMENT OF CIVIL PENALTIES THAT MAY BE APPLIED TO ANY OTHER

VIOLATOR OF ENVIRONMENTAL LAWS. UNFORTUNATELY, I AM FORCED TO AGREE WITH THE REMARKS MADE BY SENATOR ROBERT STAFFORD DURING THE DEBATES ON THE SUPERFUND REAUTHORIZATION WHEN HE DECLARED:

> "BUT NO LOOPHOLE, IT SEEMS, IS TOO SMALL
> TO BE FOUND BY THE FEDERAL GOVERNMENT."

DESPITE CONGRESS' WAIVER OF SOVEREIGN IMMUNITY, THE JUSTICE DEPARTMENT CONTINUES TO FILE VOLUMINIOUS BRIEFS FILLED WITH TECHNICAL ARGUMENTS WHICH STRAIN THE VERY WORDS USED BY CONGRESS, TRYING TO AVOID THE IMPOSITION OF PENALTIES ON FEDERAL FACILITIES THAT IS EXACTLY WHAT THEY HAVE DONE IN RESPONSE TO MY LAWSUIT FOR THEIR VIOLATION OF THE HAZARDOUS WASTE AND WATER POLLUTION LAWS AT THE FERNALD FACILITY.

THIS IS THE SAME JUSTICE DEPARTMENT WHICH SEEKS TO IMPOSE CIVIL PENALTIES ON FINANCIALLY STRAPPED TOWNS AND MUNICIPALITIES THAT FAIL TO MEET THE REQUIREMENTS OF THE FEDERAL CLEAN WATER ACT. THESE CONFLICTING POSTURES CONSTITUTE A DOUBLE STANDARD OF MAJOR DIMENSION.

FINALLY, ATTORNEY GENERAL MEESE HAS ADOPTED A POLICY, A COPY OF WHICH I HAVE PROVIDED TO THE COMMITTEE, WHICH EFFECTIVELY PRECLUDES SETTLEMENTS OF LAWSUITS ON TERMS WHICH WOULD COMMIT A FEDERAL AGENCY TO SPEND MONEY TO BRING ITS FACILITIES INTO COMPLIANCE WITH ENVIRONMENTAL LAWS PRIOR TO APPROVAL BY CONGRESS OF THE APPROPRIATION TO REMEDY THE SITUATION. INDEED, PURSUANT TO THE ATTORNEY GENERAL'S POLICY, THE AGENCY IS NOT EVEN ALLOWED TO COMMIT TO ASK CONGRESS FOR THE NEEDED FUNDS. SINCE THESE PROJECTS CAN AND DO TAKE MANY YEARS TO COMPLETE, THIS SETTLEMENT POLICY APPEARS TO BE A MALEVOLENT CATCH-22 DESIGNED TO PREVENT SUCH COMPLIANCE COMMITMENTS.

FINALLY, IN ADDITION TO ACCOUNTABILITY ROADBLOCKS WHICH HAVE BEEN CONSTRUCTED BY THE JUSTICE DEPARTMENT, THE PRESIDENT ISSUED EXECUTIVE ORDER NO. 12580 EARLY THIS YEAR, WHICH EFFECTIVELY BESTOWS UPON D.O.E. AND OTHER FEDERAL AGENCIES THE FINAL AUTHORITY TO DETERMINE, WITHOUT INDEPENDENT REGULATORY REVIEW, THE BEST WAY OF ABATING ENVIRONMENTAL CONTAMINATION WHICH THE FEDERAL FACILITIES THEMSELVES HAVE CAUSED.

MR. CHAIRMAN, THIS APPROACH ASKS TOO MUCH FROM THE PEOPLE OF OHIO. EFFECTIVELY, THE PRESIDENT HAS DECLARED THAT THE SAME ENTITY WHICH HAS IRRESPONSIBLY CONTAMINATED THE SOIL AND WATER OF OHIO WITH

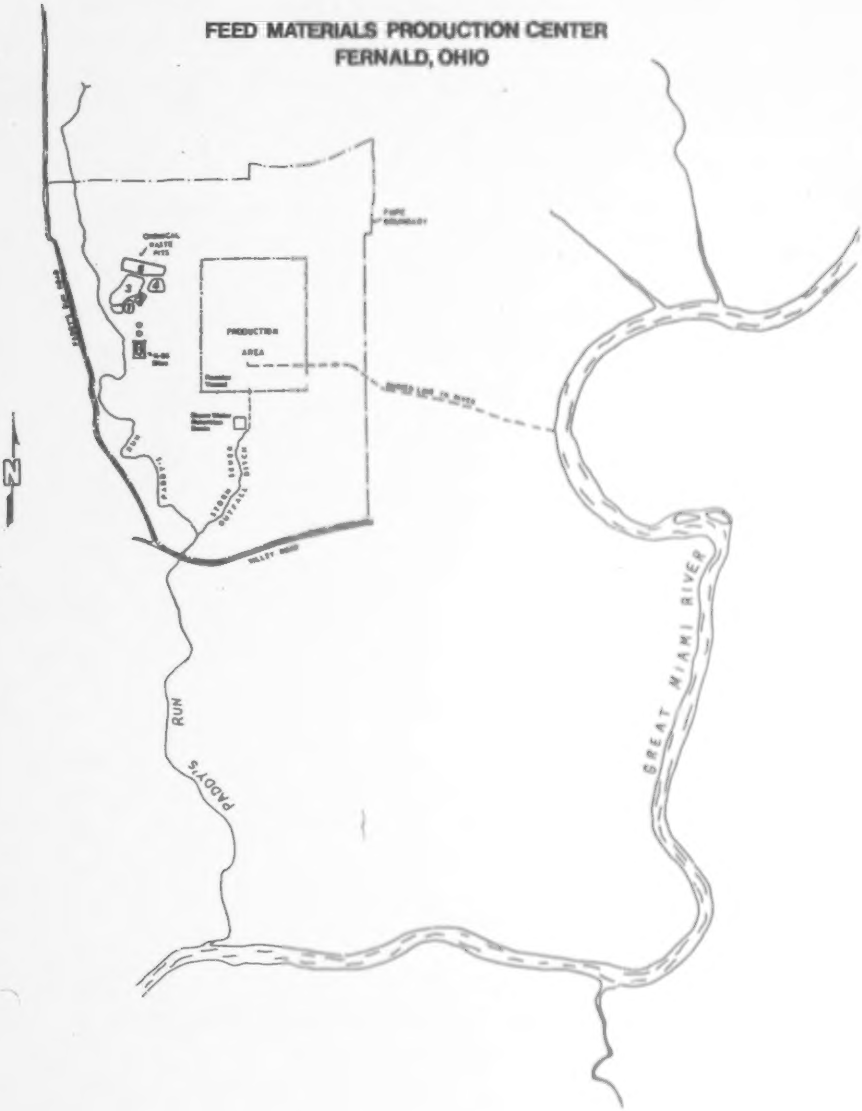
RADIOACTIVITY AND HAZARDOUS MATERIALS IS NOW GIVEN THE RESPONSIBILITY TO CHOOSE A COMPREHENSIVE REMEDY TO ABATE THE CONTAMINATION WHICH NEVER SHOULD HAVE OCCURRED IN THE FIRST PLACE. IN OHIO, MUCH OF THE CONTAMINATION CAUSED BY THE DEPARTMENT OF ENERGY IS A RESULT OF DELIBERATE DECISIONS MADE BY THE DEPARTMENT AND ITS CONTRACTORS, KNOWING THAT CONTAMINATION WOULD PROBABLY FOLLOW. TO NOW EXPECT THE SAME PEOPLE WHO KNOWINGLY CAUSED THIS CONTAMINATION TO EXERCISE THE PRUDENCE AND GOOD JUDGMENT TO EXPEND THE FUNDS TO THOROUGHLY ABATE THE CONTAMINATION IS HARD TO BELIEVE.

MR. CHAIRMAN, I COMMEND YOU AND THE MEMBERS OF YOUR COMMITTEE FOR THESE HEARINGS AND I URGE YOU TO ACTIVELY PRESS FOR MORE COMPREHENSIVE AND SPECIFIC WAIVERS OF SOVEREIGN IMMUNITY IN THE ENVIRONMENTAL STATUTES AND TO USE YOUR POWER TO FORCE REFORM WITHIN THE FEDERAL AGENCIES AND OBTAIN A COMMITMENT TO ENVIRONMENTAL QUALITY FROM THEM. OUR NATION WAS BUILT ON THE PRINCIPLE OF CHECKS AND BALANCES IN ORDER TO AVOID OMNIPOTENT POWER BEING EXERCISED BY A SINGLE PERSON OR ENTITY. THIS BASIC TENET OF OUR GOVERNMENT SHOULD NOT BE VIOLATED IN AS IMPORTANT AN AREA AS OUR ENVIRONMENT.

THANK YOU.

ATTACHMENTS

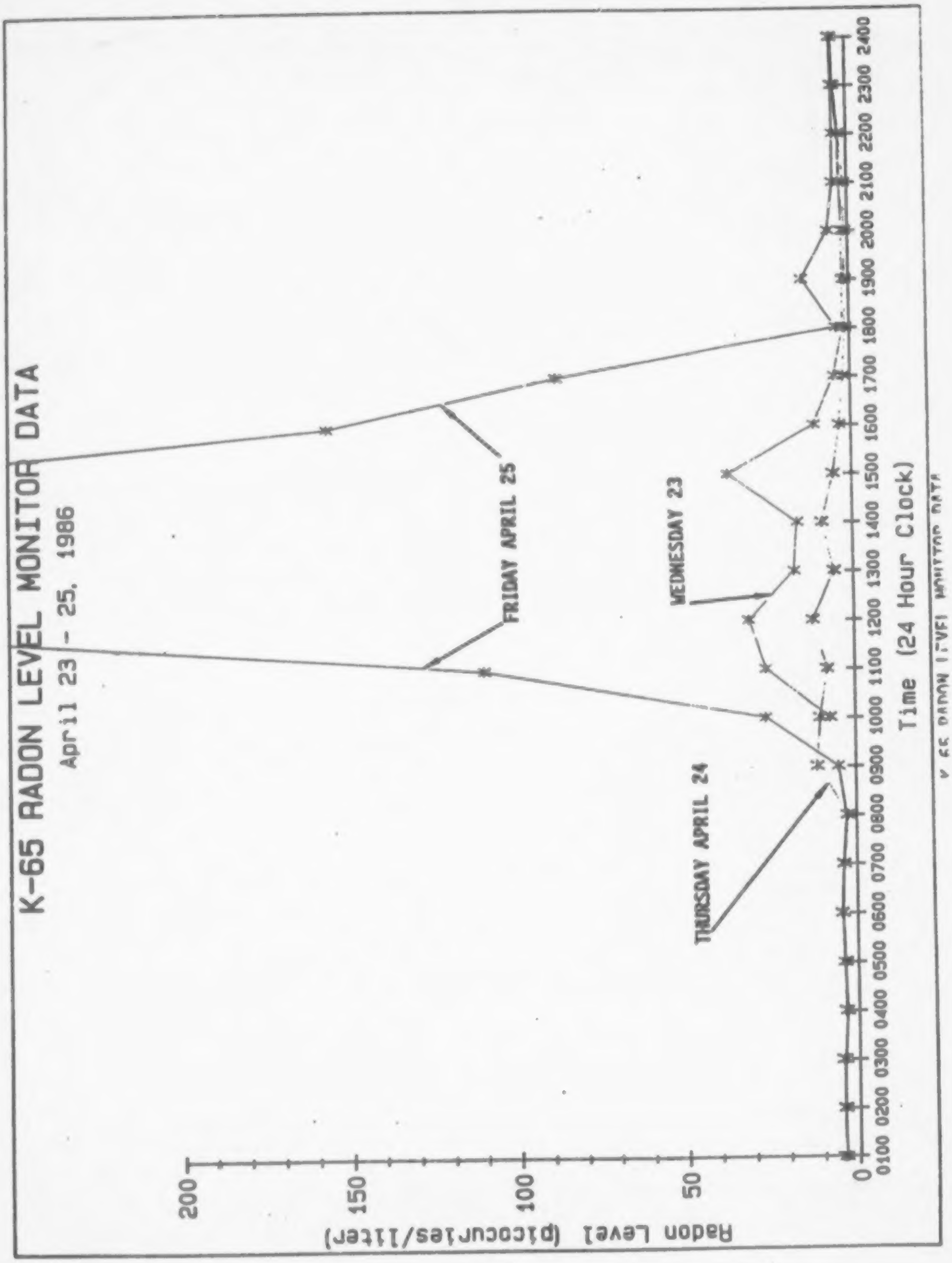
FEED MATERIALS PRODUCTION CENTER
FERNALD, OHIO



Onsite Continuous Monitor Results

Time	April 24, 1986 Amount of Radon Gas Recorded pCi/l	April 25, 1986 Amount of Radon Gas Recorded pCi/l
09:00	11.10	5.01
10:00	10.10	26.10
11:00	7.90	110.00
12:00	11.90	309.00
13:00	5.52	471.00
14:00	3.33	694.00
15:00	5.31	333.00
16:00	3.33	156.00
17:00	1.90	87.80
18:00	1.06	37.00

APRIL 25, 1986 ONSITE DIRECT AIR SAMPLING MONITOR DATA
Figure 14


K-65 RADON LEVEL MONITOR DATA
April 23 - 25, 1986
Radon Level (picocuries/liter)
200
150
100
50
0
0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400
Time (24 Hour Clock)
FRIDAY APRIL 25
WEDNESDAY 23
THURSDAY APRIL 24
K-65 RADON LEVEL MONITOR DATA

DEPARTMENT OF JUSTICE

Office of the Attorney General
Washington, D.C. 20530

MEMORANDUM

TO: All Assistant Attorneys General
All United States Attorneys

FROM: EDWIN MEESE III
Attorney General

SUBJECT: Department Policy Regarding Consent Decrees and Settlement Agreements

The following policy is adopted to guide government attorneys involved in the negotiating of consent decrees and settlements. Adopted pursuant to the Attorney General's litigation and settlement authority, these guidelines are designed to ensure that litigation is terminated in a manner consistent with the proper roles of the Executive and the courts. They are to be followed in all cases tried by counsel under the direction of the Attorney General.

I. General Policy on Consent Decrees and Settlement Agreements

Consent decrees are negotiated agreements that are given judicial imprimatur when entered as an order of the court. Because of their unique status as both contract and judicial act, consent decrees serve as a useful device for ending litigation without trial, providing the plaintiff with an enforceable order, and insulating the defendant from the ramifications of an adverse judgement. In the past, however, executive departments and agencies have, on occasion, misused this device and forfeited the prerogatives of the Executive in order to preempt the exercise of those prerogatives by a subsequent Administration. These errors sometimes have resulted in an unwarranted expansion of the powers of judiciary -- often with the consent of government parties -- at the expense of the executive and legislative branches.

The executive branch and the legislative branch may be unduly hindered by at least three types of provisions that have been found in consent decrees:

1. A department or agency that, by consent decree, has agreed to promulgate regulations, may have relinquished its power to amend those regulations or promulgate new ones without the participation of the court.

2. An agreement entered as a consent decree may divest the department or agency of discretion committed to it by the Constitution or by statute. The exercise of discretion, rather than residing in the Secretary or agency administrator, ultimately becomes subject to court approval or disapproval.

3. A department or agency that has made a commitment in a consent decree to use its best efforts to obtain funding from the legislature may have placed the court in a position to order such distinctly political acts in the course of enforcing the decree.

In Section II these guidelines address each of these concerns and limit authority to enter into consent decrees that would require the Secretary or agency administrator to revise, amend or promulgate regulations; that would require the Secretary or agency administrator to expend funds which Congress has not appropriated, or to seek appropriations from Congress; or that would divest the Secretary or the agency administrator of discretion granted by the Constitution or by statue.

These limitations on entry into consent decrees that might include such provisions are required by the executive's position, that it is constitutionally impermissible for the courts to enter consent decrees containing such provisions where the courts would not have had the power to order such relief had the matter been litigated.

The limitations in Section II.A. of the guidelines are not intended to discourage termination of litigation through negotiated settlements. The Attorney General has plenary authority to settle cases tried under his direction, including authority to enter into settlement agreements on terms that a court could not order if the suit were tried to conclusion. Settlement agreements -- similar in form to consent decrees, but not entered as an order of the court -- remain a perfectly permissible device for the parties and should be strongly encouraged. Section II.B., however, places some restrictions on the substantive provisions which may properly be included in settlement agreements. For example, Section II.B.1. allows a department or agency to agree in a settlement document to revise, amend, or promulgate new regulations, but only so long as the department or agency is not precluded from changing those regulations pursuant to the APA. Similarly, under Section II.B.2. the Secretary or agency administrator may agree to exercise his discretion in a particular manner, but may not divest himself entirely of the power to exercise that discretion as necessary in the future. The guidelines further provide that in certain circumstances where the agreement constrains agency discretion, a settlement agreement should specify that the only sanction for the government's failure to comply with a provision of a settlement agreement shall be the revival of the suit. Revival of the suit as the sole remedy removes the danger of a judicial order awarding damages or providing specific relief for breach of an undertaking in a settlement agreement.

Finally, it must be recognized that the Attorney General has broad flexibility and discretion in the conduct of litigation to respond to the realities of a particular case. Such flexibility can be exercised by the Attorney General in granting exceptions to this policy.

II. Policy Guidelines on Consent Decrees and Settlement Agreements

A. Consent Decrees

A department or agency should not limit its discretion by consent decree where it would assert that a similar limitation imposed by injunction unduly or improperly constrains executive discretion. In particular, the Department of Justice will not authorize any consent decree limiting department or agency authority in the following manner:

1. The department or agency should not enter into a consent decree that converts into a mandatory duty the otherwise discretionary authority of the Secretary or agency administrator to revise, amend, or promulgate regulations.

2. The department or agency should not enter into a consent decree that either commits the department or agency to expend funds that Congress has not appropriated and that have not been budgeted for the action in question, or commits a department or agency to seek a particular appropriation or budget authorization.

3. The department or agency should not enter into a consent decree that divests the Secretary or agency administrator, or his successors, of discretion committed to him by Congress or the Constitution where such discretionary power was granted to respond to changing circumstances, to make policy or managerial choices, or to protect the rights of third parties.

B. Settlement Agreements

The Department of Justice will not authorize any settlement agreement that limits the discretion of a department or agency in the following manner:

1. The department or agency should not enter into a settlement agreement that interferes with the Secretary or agency administrator's authority to revise, amend, or promulgate regulations through the procedures set forth in the Administrative Procedure Act.

2. The department or agency should not enter into a settlement agreement that commits the Department or agency to

expend funds that Congress has not appropriated and that have not been budgeted for the action in question.

In any settlement agreement in which the Secretary or agency administrator agrees to exercise his discretion in a particular way, where such discretionary power was committed to him by Congress or the Constitution to respond to changing circumstances, to make policy or managerial choices, or to protect the rights of third parties, the sole remedy for the department or agency's failure to comply with those terms of the settlement agreement should be the revival of the suit.

C. Exceptions

The Attorney General does not hereby yield his necessary discretion to deal with the realities of any given case. If special circumstances require any departure from these guidelines, such proposed departure must be submitted for the approval of the Attorney General, the Deputy Attorney General, or the Associate Attorney General at least two weeks before the consent decree is to be entered, or the settlement agreement signed, with a concise statement of the case and of reasons why departure from these guidelines will not tend to undermine their force and is consistent with the constitutional prerogatives of the executive or the legislative branches. Written approval of the Attorney General, the Deputy Attorney General, or the Associate Attorney General will be required to authorize departure from these guidelines.

Statement of
Roger Stanley
Washington State Department of Ecology
Before the
Committee on Governmental Affairs
United States Senate

March 17, 1987

Good morning Mr. chairman and members of the committee. I am Roger Stanley, Project Manager for Hanford site waste permitting and compliance activities of the Washington State Department of Ecology.

I appreciate the opportunity to appear before you and to discuss environmental compliance issues as they relate to the Hanford site. To that end I will outline Hanford activities, the variety of wastes generated, and facilities which have and continue to be utilized in their management. I will note the state's concern regarding actual and potential contamination of the environment and difficulties which we continue to experience in our efforts to ensure environmentally sound waste management practices. I will note our increasing concern over continuing delays in the proper management of mixed waste, and finally; I will note the current Washington Department of Ecology hope and expectation that the committee will recognize and take action to rectify, the inequity which presently exists in the application of environmental requirements between the private sector and facilities under the control of the United States Department of Energy and other federal facilities.

Overview

The Department of Energy's Hanford site occupies some 570 square miles of semi arid lands, adjacent to the Columbia River, within the eastern segment of Washington State. It represents one of the USDOE's key facilities and consists of numerous industrial sites whose primary activities are the assembly and irradiation of nuclear fuels, followed by chemical separation and isotope purification processes. The objective of these processes is the acquisition of special nuclear materials for defense programs. Ancillary Hanford activities include research and development projects focusing on the breeder reactor program, strategic defense initiative, and nuclear biomedicine.

USDOE Activities, Resulting Contamination, and Delay in the Implementation of Sound Waste Management Systems

Site activities are highly dependent on the utilization of chemicals and generate a wide range of wastes exhibiting radioactive, chemical, or both radioactive and chemical hazards, i.e. mixed waste. These wastes have long been disposed on-site by either landfill (solid and containerized waste), underground tank (concentrated liquid waste) or direct discharge to ground (nonradioactive excess chemical solutions and liquids containing dilute concentrations of environmental contaminants).[1] Waste volumes are exceptionally large as has recently been described within the USGAO's "unresolved Issues Concerning Hanford's Waste Management Practices", November 1986.

Primary to Washington's environmental concerns are those concentrated chemical mixed wastes which are presently stored within some 170 buried tanks, landfilled, or which reside in contaminated area soils. Tank wastes alone amount to some 65,000,000 gallons and represent one of the largest single accumulations of extremely hazardous mixed waste in the free world.

USDOE's historic approach towards Hanford mixed waste management has focused almost solely on land disposal and its many variations (coupled with little or no attention to associated, and often predominant, chemical hazard) and a gradually weakening reluctance to comply with this nation's stringent hazardous waste management requirements. As a result, USDOE now lags far behind the private sector in compliance, and the development and implementation of alternative techniques. Mixed waste management practices at Hanford continue to be poor. For example, over

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[1] Containerized nonradioactive chemical wastes were disposed on-site until after promulgation of the Environmental Protection Agency's and Washington State's hazardous waste management programs. These wastes are now shipped off the reservation for disposal. Releases of excess chemical solutions to Hanford sewers have been greatly reduced following the issuance of Washington Regulatory Order No. DE 85-677, and the required installation of piping systems designed to preclude these releases.

40 of Hanfords' mixed waste tanks have been identified as "assumed leakers".[2] Landfill operations continue to accept a wide range of extremely hazardous mixed waste including listed EPA RCRA wastes banned under the 1984 hazardous and solid waste amendments (HSWA). Landfill design criteria remain much as they have since operations began and meet none of today's state of the art requirements. Ground water monitoring around these facilities is near nonexistant and USDOE is only now planning for the installation of an initial monitoring well system (again, under order from the State of Washington).

Lesser contaminated low level radioactive waste streams continue to be discharged directly to ground under the antiquated management philosophy that long lived radioisotopes will be retained in surface soils. This philosophy was developed with virtually no thought for the Hanford environment itself or chemical contaminants within these wastes.

The result of these practices is increasingly widespread contamination of area soils and the continuing release of contaminants to ground waters from both planned and unplanned events. Hanford consequently faces the prospect of years of remedial action as well as the implementation of technologically sound waste management systems.

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[2] USDOE report, Liquid Waste Disposal Units, October 1, 1986, submitted to the USEPA region 10 in partial response to inquiries under RCRA's section 3007.

USDOE Proposals For Exclusion From Regulation Lack Rationale

In an effort to pursue proper Hanford waste management, the Department of Ecology's director Andrea Beatty Riniker called for the submittal of USDOE's hazardous waste permit applications by November 8, 1985.[3] Mixed wastes were specifically incorporated within this request. USDOE staff countered with their publication of a proposed byproduct rulemaking on November 1, 1985.[4] Under this proposal virtually all of Hanford's mixed wastes and mixed waste facilities are to be excluded from EPA or state regulation as hazardous waste units. The basis for this, still pending proposal is a broad interpretation of the exclusion for byproduct material as contained within RCRA at section 1004 (27). USDOE's proposal met immediate and widespread objection by the EPA, NRC, involved states, environmental organizations, and a number of congressional representatives.[5]

Primary among these objections has been a recognition of USDOE's poor history of hazardous waste management and the lack of any supportive rationale. USDOE has simply proposed that any mixed wastes directly associated with any defense production facility be exempted from RCRA and state hazardous waste program requirements. We find this unsupported attempt at exclusion as an example of USDOE's unwillingness to change and to meet the many environmental issues facing it head on.

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[3] Letter, Andrea Beatty Riniker, Washington Department of Ecology to T. R. Fitzsimmons, U.S. Department of Energy April 30, 1985.

[4] Federal Register, Vol. 50 No. 212, November 1, 1985

[5] Letter, Mike Synar and 69 other congressional representatives including the chairman and Mr. Sasser, to USDOE Secretary John Herrington, October 17, 1986.

The proposal further implies (by virtue of the purpose of the subject facilities and the omission of supportive rationale) that there could be national security concerns associated with regulation of these facilities (as hazardous waste units). This does not appear to be the case. Statements by Hanford USDOE and contractor staff have noted that RCRA management of the proposed byproduct mixed waste streams (including tank wastes) would not represent a threat to national security.

Nonetheless, USDOE continues to press for their exclusion. Present activities have focused on a USDOE "Option to the Byproduct Rule" which was initially presented to EPA staff on November 24, 1986 (shortly after the previously referenced congressional letter of October 17, 1986). Under this option the USDOE would first roll back the definitional population of excluded byproduct wastes so as to not cover its key (concentrated) mixed waste streams. It could then seemingly concede the issue without in actuality doing so. USDOE would then categorize the majority of its remaining mixed wastes as high level radioactive waste, transuranic waste, or the rather nebulous classification of "certain other radioactive wastes."[6] Tank wastes are reportedly to be covered within the term high level radioactive waste.[7] These categories (HLW TRU, CORW) are then proposed for exclusion via EPA rulemaking.

In justification of this suggestion, USDOE has introduced the term "duplicative" and has had the temerity to suggest that the EPA invoke the inconsistency provision of RCRA's section 1006. We find this suggestion unsupported and indeed contrary to the required application of EPA's RCRA permitting and compliance programs throughout the remainder of the regulated community. What reply would we subsequently give other hazardous waste facility operators who assert the adequacy of their own tank or system?

We submit that the issue at hand is not whether a particular tank or system is adequately designed , but whether or not any category of mixed

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6 This latter category was reportedly developed in order to cover Naval reactor components such as those disposed by burial on the Hanford site.

7 It should be noted that there now exists a very serious dilemma regarding the proper application of the term "high level radioactive waste." This dilemma hinges on the current definition of these wastes within the Nuclear Waste Policy Act of 1982 and its subsequent requirement that HLW must be afforded permanent isolation via deep geologic repository. Under this definition, all wastes routed to Handford's tank farms can be classified as HLW. However, USDOE plans for the future disposal of these wastes call for all but a few streams to be routed directly to surface land disposal units. The few remaining tank waste streams are to undergo initial separation of chemical and radiological phases prior to disposal of each (via land disposal and repository respectively).

waste should rightfully be exempted from hazardous waste regulation. Without such a demonstration (and there has been none), mixed waste streams should be recognized and regulated in the same manner as hazardous wastes within the private sector, i.e. from the point of generation.

USDOE Activities Are Aimed at Eroding Regulatory Agency Enforcement Capabilities

USDOE's reluctance to comply with EPA and state environmental programs has also resulted in numerous activities on another front which have a similar goal. These activities are directed at eroding the enforcement capabilities of the EPA and state environmental agencies. If successful, a resolution of the mixed waste issue for EPA and the states and enforcement of needed remedial activities under the Superfund (CERCLA) program could prove largely ineffective. Four specific activities are now in progress as follows:

A. The EPA is currently negotiating with the USDOE to resolve the question of its ability to issue enforceable regulatory orders for violation of RCRA requirements. This issue surfaced in the fall of 1986 following lengthy negotiations between USDOE, the Washington Department of Ecology, and regional EPA staff (similar negotiations were in progress within other affected states). These negotiations resulted in the development of a draft triparty Consent Agreement and Compliance Order which addressed a number of specific hazardous waste violations on the Hanford site. However, prior to signature USDOE raised the assertion that the EPA does not have the authority to issue or enforce regulatory orders against federal facilities under RCRA.

This issue was subsequently remanded to the Department of Justice and a number of negotiation sessions have followed between DOJ, USDOE and the EPA. A resulting draft Memorandum Of Understanding[8] would render the EPA virtually powerless in this regard.

B. USDOE continues to assert that it is immune to civil penalty for environmental violations despite a clear congressional intent to make federal facilities subject to the same sanctions as the private sector. States such as Washington are thus left essentially without this needed compliance tool and are forced to consider protracted litigation.

C. Under USDOE's proposed "Option to the Byproduct Rule", Energy has suggested that the EPA take actions to formally preclude any state enforcement activities resulting in the event the Option is accepted.

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[8] Memorandum, Gene A. Lucero to Basil Constantelos, Charles Findley and Patrick Tobin - Environmental Protection Agency, January 23, 1987.

D. Executive Order 12580 dated January 23, 1987. This document seriously undermines the EPA's ability to enforce needed federal facility remedial actions under the Superfund Amendments and Reauthorization Act of 1986 (SARA). Under the order, EPA can now issue regulatory orders for cleanup and civil penalties only with the concurrence of the Attorney General.

Summary

Hazardous mixed waste management on the Hanford site represents a continuing and increasing concern to the Washington Department of Ecology. It is our position that the USDOE must be made to realize that its exclusionary activities must cease and that Washington will accept nothing short of full and formal compliance with environmental requirements such as RCRA, CERCLA, and subsequently formulated state programs. We assert that USDOE has clearly demonstrated through its own waste management record that continued self regulation is not a viable option. Furthermore, the USDOE has been unable to demonstrate either inconsistencies between its own and EPA or state environmental programs or a sound rationale supporting its continued efforts to exclude itself from full compliance.

I am consequently here today to respectfully ask the committee to recognize these difficulties and aid both the Environmental Protection Agency and states such as Washington by taking steps to clarify our authority over these wastes and strengthen our abilities to fully enforce compliance with these detailed, nationally recognized, waste management programs. We also ask that you support these intitiatives through the appropriation process and direct the USDOE to aggressively pursue the funds needed for these activities.

The Department of Energy must recognize that it is not immune to these laws and that it must comply in a manner fully equivalent to that demanded of the private sector.

This concludes my prepared testimony. I will be happy to answer any questions you might have.

STATEMENT OF
LEWIS R. BEDENBAUGH
DIRECTOR, DIVISION OF FACILITY COMPLIANCE
BUREAU OF SOLID AND HAZARDOUS WASTE MANAGEMENT
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
BEFORE THE
COMMITTEE ON GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

MARCH 17, 1987

GOOD MORNING, MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE. IT IS INDEED A PLEASURE TO BE HERE TO DISCUSS MATTERS RELATING TO THE DEPARTMENT OF ENERGY'S COMPLIANCE WITH ENVIRONMENTAL PROTECTION REGULATIONS. I AM LEWIS R. BEDENBAUGH, DIRECTOR OF THE DIVISION OF FACILITY COMPLIANCE FOR THE BUREAU OF SOLID AND HAZARDOUS WASTE MANAGEMENT WITHIN THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL. FOR YOUR INFORMATION OUR AGENCY IS OFTEN REFERRED TO AS "DHEC". I AM HERE REPRESENTING MR. R. LEWIS SHAW, DHEC'S DEPUTY COMMISSIONER FOR THE OFFICE OF ENVIRONMENTAL QUALITY CONTROL WHO, REGRETFULLY, IS UNABLE TO ATTEND THIS HEARING DUE TO A PRIOR COMMITTMENT. I WOULD LIKE TO QUALIFY AT THE OUTSET THAT MY TESTIMONY MAY BE SOMEWHAT LIMITED IN SCOPE SINCE MY ROLE WITHIN OUR ORGANIZATION IS NOT AS COMPREHENSIVE AS THAT OF MR. SHAW. I DO, HOWEVER, HAVE A GENERAL KNOWLEDGE OF OTHER PROGRAM AREAS WITHIN OUR DEPARTMENT AND HAVE BEEN BRIEFED CONCERNING CERTAIN AIR, RADIOLOGICAL, WASTEWATER, AND GROUNDWATER ISSUES.

MR. SHAW HAS RESPECTFULLY SUGGESTED THAT HIS AND OTHER INDIVIDUAL'S TESTIMONY OF JULY 11, 1986, BEFORE THE HOUSE SUBCOMMITTEE OF THE COMMITTEE ON GOVERNMENT OPERATIONS MIGHT BE OF PARTICULAR INTEREST TO YOU AND YOUR STAFF IN REVIEWING DOE'S COMPLIANCE WITH ENVIRONMENTAL REGULATIONS. A COPY OF HIS TESTIMONY IS ATTACHED FOR YOUR CONVENIENCE.

INITIALLY, I WOULD LIKE TO DISCUSS OUR DEPARTMENT'S ROLE IN THE AREA OF ENVIRONMENTAL PROTECTION. DHEC IS CHARGED, AND I MIGHT ADD CHALLENGED, WITH THE RESPONSIBILITY OF ASSURING THE STATE'S ENVIRONMENTAL QUALITY AND FOR PROTECTING THE PUBLIC'S HEALTH. WE ALSO PROVIDE TECHNICAL ASSISTANCE TO THE REGULATED COMMUNITY. STATUATORY AUTHORITY FOR THIS RESPONSIBILITY IS FOUND WITHIN THE SOUTH CAROLINA POLLUTION CONTROL ACT, SOUTH CAROLINA HAZARDOUS WASTE MANAGEMENT ACT, SOUTH CAROLINA SAFE DRINKING WATER ACT AND SOUTH CAROLINA ATOMIC ENERGY AND RADIATION CONTROL ACT. DHEC HAS SOUGHT AND OBTAINED DELEGATION FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY FOR IMPLEMENTATION OF THE FEDERAL PROGRAMS UNDER THE CLEAN AIR ACT, CLEAN WATER ACT, SAFE DRINKING WATER ACT, AND RESOURCE CONSERVATION AND RECOVERY ACT. OUR DEPARTMENT RECEIVES PERIODIC REVIEW AND OVERSIGHT FROM EPA AND ENJOY'S A VERY CLOSE RELATIONSHIP WITH THAT AGENCY. WE ARE VERY PROUD OF OUR PROGRAMS AND ARE PLEASED WITH THE PROGRESS WE HAVE MADE IN RECENT YEARS AS EVIDENCED BY EPA'S REVIEWS.

OBVIOUSLY, WITH THESE DELEGATIONS AND CHARGES COME RESPONSIBILITIES. RIGHTFULLY SO, THE PUBLIC, OUR GENERAL ASSEMBLY, CONGRESS, EPA, AND OTHERS HAVE GREAT EXPECTATIONS, PARTICULARLY IN THE AREA OF HAZARDOUS WASTE MANAGEMENT, OF WHICH I AM MOST FAMILIAR. EVERYONE LOOKS TO OUR AGENCY AND THE REGULATED COMMUNITY TO BE RESPONSIVE TO THESE CONCERNS. WE ARE DIRECTED TO BE EQUITABLE, EFFECIENT AND EFFECTIVE IN CARRYING OUT OUR DUTIES. THIS DEPARTMENT AND EPA HAVE SPENT MANY YEARS IN DEVELOPMENT OF PROTOCOLS, PROCEDURES, AND STRATEGIES WHEREBY SUCH DIRECTIVES ARE ACHIEVED IN ALL ENVIRONMENTAL AREAS.

I HAVE BEEN PRIVILEDGED TO SERVE ON A NATIONAL COMMITTEE CONVEYNED BY EPA IN CONCERT WITH THE NATIONAL ASSOCIATION OF ATTORNEY GENERALS, AND THE ASSOCIATION OF STATE AND TERRITORIAL SOLID WASTE MANAGEMENT OFFICIALS TO DEVELOP AN ENFORCEMENT RESPONSE POLICY TO ASSIST STATES AND EPA IN ENSURING THAT HAZARDOUS WASTE VIOLATIONS ARE RESPONDED TO IN A "TIMELY AND

APPROPRIATE" MANNER. ALTHOUGH TO MY KNOWLEDGE, EPA HAS NOT FINALIZED REVISIONS TO THIS POLICY, DURING THESE MEETINGS IT BECAME VERY CLEAR THAT ALL STATES HAVE SIMILAR PROBLEMS AND OBJECTIVES. IT WAS ALSO ENLIGHTENING TO LEARN THAT FEDERAL FACILITIES POSE UNIQUE PROBLEMS TO OTHER STATES DUE TO CERTAIN JURISDICTIONAL AND TECHNICAL QUESTIONS.

THE "TIMELY AND APPROPRIATE" STANDARD BY WHICH EPA HAS EVALUATED STATE'S HAZARDOUS WASTE ENFORCEMENT PROGRAMS IN RECENT YEARS REQUIRES THAT REGULATED ENTITIES BE PLACED UNDER A FORMAL ORDER WITHIN 135 DAYS OF AN INSPECTION WHICH REVEALS THAT HE HAS VIOLATED CERTAIN "HIGH PRIORITY" AREAS; INCLUDED IN THESE ARE GROUND WATER MONITORING, CLOSURE/POST CLOSURE CARE, AND FINANCIAL RESPONSIBILITY FOR THEIR HAZARDOUS WASTE ACTIVITIES. EPA EXPECTS THAT CIVIL PENALTIES WILL BE IMPOSED FOR VIOLATIONS OF THESE PRIORITY AREAS. EPA HAS NOT OFFICIALLY DIFFERENTIATED BETWEEN PRIVATE AND GOVERNMENTAL ENTITIES IN THESE EXPECTATIONS. IN ACTUALITY, EPA ENCOURAGES THE STATES TO BE CONSISTENT IN APPROACH AND SUBSTANCE BUT UNDERSTANDS THE DIFFICULTIES REGARDING STATE AUTHORITY OVER FEDERAL FACILITIES.

MOST STATES, INCLUDING SOUTH CAROLINA, OVER THE YEARS HAVE CREATED ADMINISTRATIVE PROCEDURES TO EXPEDITE ACTIONS AND MAKE MORE EFFECTIVE ITS ENFORCEMENT PROGRAMS. WITH THE ENCOURAGEMENT OF OUR BOARD AND THE ENDORSEMENT OF THE REGULATED COMMUNITY, ALL ENVIRONMENTAL PROGRAM AREAS WITHIN DHEC INCLUDING AIR, WASTEWATER, HAZARDOUS WASTE, DRINKING WATER, AND RADIOLOGICAL HEALTH, HAVE IMPLEMENTED SUCH PROCEDURES. OUR PROGRAMS HAVE BEEN VERY SUCCESSFUL IN NEGOATIATING CONSENT ORDERS, AGREEMENTS AND/OR SETTLEMENTS WHICH NORMALLY INCLUDE PENALTIES FOR VIOLATIONS. THESE PROCEDURES PRECLUDE THE NEED FOR COSTLY LITIGATION AND USUALLY ACHIEVE THE DESIRED ENVIRONMENTAL BENEFITS IN A MUCH MORE TIMELY MANNER. IN TIMES SUCH AS THESE OF ECONOMIC HARDSHIP, IT IS MOST IMPORTANT THAT WE BE EFFICIENT

AND EFFECTIVE IN MEETING OUR MANDATES. THESE PROCEDURES PROVIDE SUCH RESULTS.

REGRETFULLY, I MUST REPORT THAT IN SOUTH CAROLINA AND MOST OTHER STATES, IN DEALING WITH FEDERAL FACILITIES OUR SUCCESS RECORD OF BEING TIMELY AND APPROPRIATE IS NOT AS COMMENDABLE. THIS IS LARGELY DUE TO THE VERY NATURE OF THE RELATIONSHIP BETWEEN STATE AND FEDERAL AGENCIES AND HAS ITS ORIGIN IN THE DOCTRINE OF SOVERIGN IMMUNITY. IN ORDER TO ILLUSTRATE THIS POINT, I WOULD LIKE TO PROVIDE YOU WITH SOME SPECIFICS REGARDING OUR ACTIONS WITH THE DEPARTMENT OF ENERGY AT THE SAVANNAH RIVER PLANT. IT SHOULD BE NOTED THAT SUCH PROBLEMS AS THESE ARE PREVALENT WITH ALL FEDERAL AGENCIES, NOT JUST DOE.

OUR AGENCY AND DOE HAVE WORKED DILIGENTLY TO ESTABLISH A BETTER WORKING RELATIONSHIP AND UNDERSTANDING OF EACH OTHERS GOALS AND OBLIGATIONS. THE CORNERSTONE OF THIS RELATIONSHIP IS A "MEMORANDUM OF AGREEMENT" (COPY ATTACHED) ENTERED INTO ON APRIL 8, 1985 BETWEEN MR. R. E. MORGAN OF DOE AND THEN COMMISSIONER OF DHEC, DR. ROBERT S. JACKSON, M.D. THIS DOCUMENT IN SIMPLE TERMS STATES THAT SRP SHALL COMPLY WITH ENVIRONMENTAL LAWS TO THE SAME EXTENT AS OTHER INDUSTRY IN SOUTH CAROLINA AND THAT DHEC SHALL MONITOR AND REGULATE SRP IN THE SAME FASHION AND TO THE SAME DEGREE AS ANY OTHER INDUSTRY IN SOUTH CAROLINA.

SHORTLY AFTER DEVELOPMENT OF THIS AGREEMENT, DHEC SET OUT TO RESOLVE CERTAIN STATE AND FEDERAL ENVIRONMENTAL VIOLATIONS WHICH HAD TRANSPIRED AT SRP. IT WAS QUICKLY LEARNED THAT THE MEMORANDUM OF AGREEMENT WOULD BE DIFFICULT TO IMPLEMENT. JURISDICTIONAL ISSUES BECAME IMMEDIATELY APPARENT. IN THE OPINION OF DOE, ASSESSMENT OF PENALTIES BY THE STATE AGAINST DOE COULD NOT BE AGREED TO. SRP HAD BEEN ADVISED BY ITS HEADQUARTERS THAT IT COULD NOT CONCEDE THAT IT WAS SUBJECT TO CIVIL PENALTIES ADMINISTERED BY

STATE AGENCIES PURSUANT TO RCRA DUE TO THE PENDING DECISION ON LEAF VERSUS HODEL. OTHER ISSUES SUBSEQUENTLY AROSE (WHICH HAVE NOT BEEN TOTALLY RESOLVED, BY THE WAY) SUCH AS A STATES AUTHORITY TO REQUIRE DOE TO COMPLY WITH STANDARDS MORE STRINGENT THAN FEDERAL LAW AND THE STATES AUTHORITY OVER "MIXED WASTE", I.E., WASTE CONTAMINATED WITH BOTH RADIOACTIVE AND HAZARDOUS CONSTITUENTS. THROUGH THE UNRELENTING EFFORTS OF BOTH SIDES, WE HAVE BEEN SUCCESSFUL IN SETTLING AT LEAST FIVE ACTIONS AT SRP AND THUS HAVE AVOIDED PROTRACTED AND COSTLY LITIGATION. ANOTHER ACTION REGARDING RCRA PERMITTING ISSUES IS UNDERWAY AND AN ACTION IS ANTICIPATED REGARDING A MULTIMEDIA INSPECTION CONDUCTED BY EPA AND THE STATE LAST YEAR.

THE FRUSTRATING ASPECTS OF THESE ACTIONS RELATES TO THE VERY SAME MATTERS WHICH THE STATES, EPA, AND CONGRESS HAVE RECOGNIZED IN DEALING WITH THE HAZARDOUS WASTE SITUATION. THE CONSENSUS IS THAT ENFORCEMENT ACTION MUST BE SWIFT TO BE EFFECTIVE. THE LONGER WE DELAY IN RESOLVING JURISDICTIONAL, ADMINISTRATIVE, AND TECHNICAL ISSUES, THE LONGER OUR OBJECTIVES OF ENVIRONMENTAL PROTECTION, ENHANCEMENT, AND PUBLIC HEALTH AND SAFETY ARE AT RISK. THE BOTTOM LINE IS THAT STATES MUST OVERCOME THESE OBSTACLES IF THEY ARE TO BE SUCCESSFUL IN THEIR DELEGATED MISSION. THE MAJOR ENCUMBERANCE APPEARS TO BE THE INTERPRETATION BY THE JUDICIAL SYSTEM THAT SOVERIGN IMMUNITY HAS NOT BEEN EXPRESSLY WAIVED BY CONGRESS IN MOST ENVIRONMENTAL STATUTES. FOR EXAMPLE, IN THE CASE OF RCRA, ARGUMENTS HAVE BEEN PERSUASIVE BY FEDERAL AGENCIES BEFORE THE COURTS THAT STATES MUST SEEK "INJUNCTIVE RELIEF" BY OBTAINING JUDICIAL ORDERS WHEN AUTHORIZED STATES CONSIDER PENALTIES TO BE APPROPRIATE. I HAVE BEEN ADVISED BY OUR AGENCY'S OFFICE OF GENERAL COUNSEL THAT THE COURTS HAVE FURTHER RULED BASED ON RCRA'S LANGUAGE, THAT SANCTIONS BY STATES AGAINST FEDERAL AGENCIES MAYBE IMPOSED ONLY BY A COURT IN ENFORCEMENT OF SUCH RELIEF. IF CONGRESS AND EPA

EXPECT THAT STATE AGENCIES ARE TO ISSUE PENALTIES AGAINST THE FEDERAL GOVERNMENT TO THE SAME DEGREE AND EXTENT THAT OTHER ENTITIES ARE PENALIZED, THEN THE WAIVER OF SOVEREIGN IMMUNITY MUST BE SO CRYSTAL CLEAR AS TO NOT LEAVE THE SAME TO JUDICIAL INTERPRETATION.

I DO NOT WISH TO LEAVE THE IMPRESSION THAT PENALTIES ARE THE ONLY ISSUE IN THIS REGARD. OTHER MATTERS SUCH AS CLEAN UP STANDARDS, TIME FRAMES AND METHODS FOR CORRECTIVE ACTION(S), AND OTHER PROCEDURAL AND SUBSTANTIVE ISSUES ARE AFFECTED BY THE COURTS INTERPRETATION. THESE, I SUPPOSE, PRESENT A MORE PRESSING CONCERN FOR FEDERAL AGENCIES SINCE STATES COULD POSSIBLY REQUIRE UNREASONABLE EXPECTATIONS. HOWEVER, THE NORMAL COURSE FOR PRIVATE ENTITIES IS TO PARTICIPATE IN REGULATORY RULEMAKING TO INFLUENCE THE SAME. CERTAINLY, IF IT IS THE TRUE DESIRE OF THE FEDERAL GOVERNMENT TO SET THE EXAMPLE TO OTHER INDUSTRY IN A PARTICULAR STATE, THEN THEY MUST BE WILLING AND ABLE TO COMPLY TO THE SAME OR A GREATER DEGREE THAN NON-GOVERNMENTAL BODIES.

IRRESPECTIVE OF THE ABOVE, AS I HAVE INDICATED, WE HAVE EXPERIENCED CONSIDERABLE PROGRESS IN THE LAST FEW YEARS IN OUR DEALINGS WITH DOE. ALTHOUGH WE ARE NOT TOTALLY SATISIFIED WITH DOE'S PROGRESS IN ADDRESSING RCRA INTERIM STATUS ISSUES AND OTHER ENVIRONMENTAL MATTERS, WE ARE PLEASED THAT THERE HAVE BEEN IMPROVEMENTS. IT IS MY UNDERSTANDING THAT DOE HAS SUSTANTIALLY COMPLIED WITH THE AGREEMENTS IT HAS ENTERED INTO WITH OUR DEPARTMENT. FURTHERMORE, DOE, EPA AND DHEC ARE WORKING CLOSELY WITH ONE ANOTHER IN REVIEW OF DOE'S APPLICATION FOR A PERMIT TO CONDUCT ITS HAZARDOUS WASTE ACTIVITIES. IT IS PROJECTED THAT A RCRA PERMIT WILL BE ISSUED BY THE STATE AND EPA LATER THIS YEAR FOR SOME OF THESE ACTIVITIES. THIS PERMIT WILL INCLUDE REQUIREMENTS BY EPA PURSUANT TO 3004(U) OF THE

HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984 TO ADDRESS SOLID WASTE MANAGEMENT UNITS AT SRP.

IT SHOULD BE RECOGNIZED BY EVERYONE THAT THE ENDEAVOR TO ADDRESS ALL OF THE ENVIRONMENTAL CONCERNS RESULTING FROM PAST PRACTICES AT SRP WILL BE A MAJOR UNDERTAKING. THESE EFFORTS WILL REQUIRE CONSIDERABLE RESOURCES ON THE PART OF DOE, EPA, AND DHEC. INADEQUATE RESOURCES WILL LIKELY RESULT IN DELAYS IN MITIGATING THESE CONCERNS. AGAIN, MONEY AND EFFORTS SHOULD NOT BE EXPENDED IN FRUITLESS ARGUMENTATION.

IN CONCLUSION, I WOULD LIKE TO OFFER THE FOLLOWING. OUR DEPARTMENT'S PRIMARY OBLIGATION IS TO THE CITIZENS OF SOUTH CAROLINA TO PROTECT THEIR PUBLIC HEALTH AND SAFETY AS WELL AS THE STATES ENVIRONMENT FROM THE ILLS OF POLLUTION. THIS MANDATE IS CLEAR AND HAS BEEN FURTHER EMPHASIZED BY DHEC'S, ACCEPTANCE OF DELEGATED FEDERAL AUTHORITY IN MOST ENVIRONMENTAL DISCIPLINES. WITH THESE RESPONSIBILITITFS COME EXPECTATIONS; EXPECTATIONS TO BE CONSISTENT, EQUITABLE, EFFECIENT, AND EFFECTIVE. WE HAVE ACCEPTED THESE AUTHORITIES AS A CHALLENGE AND AN OPPORTUNITY TO ENHANCE THE QUALITY OF LIFE IN SOUTH CAROLINA. HOWEVER, WE FEEL THAT ON THE ONE HAND CONGRESS GIVES AND THE OTHER HAND THE JUDICIAL SYSTEM TAKES AWAY. THERE NEEDS TO BE CLARIFICATION IN THE FEDERAL ENVIRONMENTAL STATUTES REGARDING THE PURVIEW OF STATES OVER FEDERAL AGENCIES IN ORDER TO MEET THE MENTIONED EXPECTATIONS AND TO ADD CREDIBILITY TO ALL PARTIES IN THE PERFORMANCE OF THEIR DUTIES.

OUR DEPARTMENT RECOGNIZES AND APPRECIATES DOE'S NATIONAL DEFENSE ROLE. WE FURTHER APPRECIATE THE GENUINE AND CONCERTED EFFORTS IN RECENTS MONTHS TOWARD ENVIRONMENTAL ASSESSMENT, REMEDIATION, AND PROTECTION. WE FEEL THAT THEY, AS MOST INDUSTRY IN OUR STATE DEALING WITH HAZARDOUS WASTES, HAVE A LONG WAY TO GO BUT ARE NOW HEADED IN THE RIGHT DIRECTION. OBVIOUSLY, CERTAIN ISSUES REMAIN CONCERNING UNITS AT SRP WHICH THE STATE AND OTHERS

HAVE THOUGHTS SHOULD BE REGULATED UNDER OUR HAZARDOUS WASTE PROGRAM. THESE UNITS ARE THE SUBJECT OF A LAWSUIT BROUGHT BY THE NATURAL RESOURCES DEFENSE COUNCIL IN WHICH OUR AGENCY HAS INTERVENED AS A PLAINTIFF.

FINALLY, ONE AREA WHICH MIGHT BE LOOKED INTO BY CONGRESS AND/OR THE EPA RELATES TO FINANCIAL RESPONSIBILITY. UNDER STATE AND FEDERAL REGULATIONS, THE HAZARDOUS WASTE INDUSTRY MUST DEMONSTRATE THEIR COMMITTIMENT TO ASSURE LONG TERM CLOSURE AND POST CLOSURE CARE OBLIGATIONS AT LAND DISPOSAL UNITS. THESE REQUIREMENTS DO NOT APPLY TO FEDERAL OR STATE OWNED FACILITIES. THE LOGIC GIVEN BY EPA IN 1980 FOR EXCLUDING THESE FACILITIES IS AS FOLLOWS, "THE AGENCY AGREES THAT STATE AND FEDERALLY-OWNED FACILITIES WILL ALWAYS HAVE ADEQUATE RESOURCES TO CONDUCT CLOSURE AND POST-CLOSURE CARE ACTIVITIES PROPERLY. THEREFORE, AN EXEMPTION FOR THESE FACILITIES HAS BEEN INCORPORATED...." WHILE I UNDERSTAND THIS LOGIC, I DO NOT TOTALLY AGREE WITH THE EXEMPTION. AT A MINIMUM, I FEEL THAT THERE SHOULD BE CLOSURE COST ESTIMATES FOR EACH REGULATED UNIT AS IS REQUIRED OF INDUSTRY. THIS WOULD PROVIDE CONGRESS AND OTHERS WITH AN IDEA OF THE NECESSARY LONG TERM COMMITMENTS OF MONIES SPECIFIC TO THESE OPERATING AND CLOSING HAZARDOUS WASTE MANAGEMENT UNITS. I AM SOMEWHAT FAMILIA WITH THE A-106 BUDGETARY PROCESS WHEREBY ANNUAL APPROPRIATIONS ARE SOUGHT BY FEDERAL AGENCIES THROUGH THE OFFICE OF MANAGEMENT AND BUDGET. I FEEL THAT AN ALTERNATIVE APPROACH SHOULD BE CONSIDERED WHICH WOULD MAKE THESE APPROPRIATIONS MORE LONG TERM AND ENDURING. AT THIS POINT, I WOULD LIKE TO THANK THIS COMMITTEE AGAIN FOR THE OPPORTUNITY TO EXPRESS OUR CONCERNS REGARDING THIS VERY IMPORTANT TOPIC AND I WILL GLADLY ANSWER ANY QUESTIONS YOU MIGHT HAVE.

ATTACHMENT 1
L.R. Bedenbaugh
South Carolina

commissioner, accompanied by Mr. Jim Ferguson, Mr. Lewis Bedenbaugh, and Mr. Russell Sherer.

Also, from the Environmental Protection Agency, Mr. Jack Ravan, Regional Administrator; accompanied by Mr. Richard Campbell. From the U.S. Geological Survey, Mr. Philip Cohen, chief hydrologist; accompanied by Rodney Cherry, district chief, South Carolina Water Resources Division.

As you all heard from the first panel, in order not to prejudice past or future witnesses of the Subcommittee, it is the policy to swear in witnesses. Do any of you have an objection to being sworn in? If not, raise your right hands.

Do you solemnly swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth?

[Witnesses sworn.]

Mr. SYNAR. Thank you very much.

Why don't we start in the order that we introduced the panel. Again, I would ask you to summarize your testimony to be made a part of the record. Our first witness is Mr. Lewis Shaw.

Mr. Shaw, welcome.

STATEMENT OF R. LEWIS SHAW, DEPUTY COMMISSIONER, SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, ACCOMPANIED BY JIM FERGUSON, LEWIS BEDENBAUGH, AND RUSSELL SHERER

Mr. SHAW. Thank you.

My name is Lewis Shaw, deputy commissioner for environmental quality control within the South Carolina Department of Health and Environmental Control. We are known locally as DHEC. You hear us refer to ourselves as such.

Under the South Carolina law, my office is responsible for assuring the State's environmental quality and protecting the public's health from effects of environmental contamination.

Our authorizing legislation is the South Carolina Pollution Control Act, South Carolina Hazardous Waste Management Act, Safe Drinking Water Act and South Carolina Atomic Energy and Radiation Control Act.

Governor Riley has also directed our agency to seek delegation of the U.S. Environmental Protection Agency programs for South Carolina. We currently are authorized to carry out EPA programs under the Clean Air Act, Clean Water Act, Safe Drinking Water Act, and Resource Conservation and Recovery Act.

We enjoy a close working relationship with the U.S. EPA and receive regular overview of our delegated Federal programs. Under the conditions of our delegation, the South Carolina Department of Health and Environmental Control is the lead environmental regulatory agency dealing with the Department of Energy facility at the Savannah River plant [SRP] near Aiken, SC.

The only exceptions are certain types of highly radioactive waste covered by the Atomic Energy Act, and the 1984 Hazardous and Solid Waste Amendments.

In addition, my office carries out South Carolina's function as an "agreement State" with the U.S. Nuclear Regulatory Commission.

ATTACHMENT 3
L.R Bedenbaugh
South Carolina

We also regulate the Barnwell low-level waste disposal facility in South Carolina.

DHEC's earliest involvement with activities at the Savannah River plant began in the 1950's with routine radiation monitoring at the boundary of the facility similar to other fixed nuclear facilities in the State. We have an agreement with SRP for reporting and responding to accidental releases of radioactivity from the facility.

In 1977 our agency began taking over regulatory authority from EPA for air pollution programs at SRP. In 1979 our agency cited the facility for violations of State air quality permit standards and later initiated an enforcement action which achieved compliance and collected a penalty for $103,950.

In 1981, DHEC took over from EPA the Clean Water Act Regulatory Program at SRP and became responsible for re-issuing the reactor cooling water NPDES permit for the startup of L-reactor. The newly drafted State permits addressed the issue of thermal contamination of onsite streams at SRP and after much debate, resulted in permits for the C&K reactors which contained compliance schedules to upgrade the existing discharges and a permit was also issued for the L-reactor which would require upgrade of L-reactor discharge prior to startup.

It was during this permit reissuance process that our agency realized the mammoth regulatory task that confronted us. SRP consists of over 300 square miles and is the size of a small South Carolina county. It also contains over 50 wastewater discharges and 164 waste sites, more than most South Carolina counties.

In 1983 we asked the South Carolina Legislature for additional funding for staff to help regulate this facility and today we receive over $700,000 for this task. We added 13 positions to our staff for this function and increased our monitoring capability.

Our review of the NPDES permit application and the RCRA part A permit application in 1981 revealed waste volumes and concentrations disposed of by seepage which strongly suggested ground water problems at the site and in March 1982, we requested a summary report from Savannah River plant on ground water.

This assessment ultimately revealed widespread ground water contamination of shallow aquifers in a recharge area and identified numerous sources, including seepage basins at the site. These seepage basins were installed in the early days of the plant's operation and were designed to prevent offsite migration of waste by allowing it to seep into the ground.

In late March 1983, we were informed by SRP of the discovery of ground water contamination at one of the wells used to supply drinking water to employees. Later, two other wells were found to be contaminated. This event ultimately led to closure of the contaminated well for drinking water purposes.

A number of events, including congressional action, has led to discontinuing the use of the M-area seepage basins. Under the South Carolina Hazardous Waste Management Act and RCRA, plans are being developed to close out the other basins.

Our agency has completed three separate enforcement actions with regard to earlier ground water contamination and accidental

ATTACHMENT
L.R. Bedenbaugh
South Carolina

spills at the site which resulted in corrective action plans and payment of $87,000.

There were also two minor incidents involving procedural violations of the Safe Drinking Water Act which resulted in departmental orders with small penalties. At the present time we are involved in negotiation for violations under the South Carolina Hazardous Waste Management Act, RCRA, and the Clean Water Act with regard to operational problems at the M-area waste treatment facility which was built to replace the M-area seepage basin.

As you can see, our agency has been very actively involved in an effort to achieve environmental compliance at the Savannah River plant. In the beginning of our regulatory effort, the Savannah River plant personnel were, in my opinion, reluctant to accept the State's regulatory authority. At times, DHEC personnel became very frustrated with the huge task of regulating this facility and being repeatedly challenged by SRP officials as to our authorities.

However, over time and with a lot of effort on both sides, we were able to develop a memorandum of agreement in 1985 which, simply stated, says SRP shall comply with environmental law to the same extent as any other industry in South Carolina and DHEC will regulate SRP in the same fashion as any other industry in South Carolina.

In reality, this document has been hard to implement. In my opinion, there has been a reluctance on the part of DOE Washington to embrace the principles of the agreement.

However, this document remains the cornerstone of our agency's policy toward the Savannah River plant. We have managed to settle many early issues between the two agencies. For example, SRP no longer questions our authority under RCRA or the Safe Drinking Water Act or the Clean Water Act NPDES Program.

However, there are issues which remain, such as assessment of fines or penalties, authority for addressing ground water contamination under the South Carolina Pollution Control Act, and the mixed waste issues. Several other issues are looming on the horizon for future debate such as the low-level burial ground at SRP under RCRA and the high-level storage facilities which may be regulated under the Leaking Underground Storage Tank Program.

If there is one overriding lesson to be learned from our experience with this facility, it is that everyone needs to have some form of independent oversight. No matter how well intentioned or motivated an organization may be to do right, self-regulation does not work.

I believe that all of DOE's activities, from production to environment to safety, needs to be reviewed by an independent body, such as another Federal agency. I don't believe that DOE, as an agency, is better or worse than most, but I do believe they will do a better job if they have to be publicly accountable for their decisions.

I have with me today Jim Ferguson, who is a geohydrologist from the State of South Carolina. I do not have any attorneys with me today. I do have Lewis Bedenbaugh, who is in charge of our RCRA enforcement, and Russ Sherer, who is in charge of our water pollution control enforcement. We will be glad to try to answer any questions you may have.

ATTACHMENT 2
LR [illegible]
South Carolina

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S. C. DEPT. OF HEALTH AND
ENVIRONMENTAL CONTROL
Bureau of Solid & Hazardous
Waste Management

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement (hereinafter "MOA") is between the Manager, Savannah River Operations Office of the Department of Energy (hereinafter "SR") and the Commissioner, South Carolina Department of Health and Environmental Control (hereinafter "SCDHEC"). The purpose of the MOA is to set forth the relationship between SR and SCDHEC regarding activities at the Savannah River Plant (hereinafter "SRP"). This MOA recognizes the SCDHEC delegated authority under the Clean Water Act (33 USC § 1251 _et seq._), the Clean Air Act (42 USC § 7401 _et seq._), the Safe Drinking Water Act (42 USC § 300(f) _et seq._) and the Resource Conservation and Recovery Act (42 USC § 6901 _et seq._). This agreement does not effect any previous agreements between SR and the Bureau of Radiological Health of SCDHEC.

NOW THEREFORE, in the spirit of a mutual cooperative desire by SR and SCDHEC to consider the following voluntary agreement to meet both parties' interests in ensuring the environmental quality on the SRP:

1. SR shall comply, as a matter of law and, to the extent not otherwise required by law, as a matter of cooperation, with the following South Carolina Acts and SCDHEC regulations and subsequent amendments unless such acts or regulations are found inapplicable by a court, or by the SCDHEC Board, or unless exempted by an Act of Congress enacted subsequent to the effective date of this MOA:

Pollution Control Act, SC Code as amended § 48-1-10 through 48-1-350

Safe Drinking Water Act, SC Code as amended § 44-55-10 through 44-55-100

Hazardous Waste Management Act, SC Code as amended § 44-56-10 through 44-56-210

Oil and Gas Exploration, Drilling, Transportation and Production Act, SC Code as amended § 48-43-10 through 48-43-850

R. 61-5
R. 61-9
R. 61-56
R. 61-58 through R. 61-58.8
R. 61-59
R. 61-60
R. 61-61
R. 61-62 through R. 61-62.6
R. 61-66
R. 61-67
R. 61-68
R. 61-69
R. 61-70
R. 61-71
R. 61-72
R. 61-73
R. 61-74
R. 61-76
R. 61-79 through R. 61-79.11
R. 61-79.124 - 61-79.270
R. 61-81
R. 61-82
R. 61-87

2. In implementing the South Carolina Acts and SCDHEC Regulations listed in section 1, SR and SCDHEC shall interrelate in the same manner as any other industry in South Carolina.

3. a. During any environmental emergency or during any SCDHEC follow-up inspection an SR representative will be onsite to respond to SCDHEC questions or guidance. Spills at SR will continue to be handled in accordance with the June 14, 1984, letter from M.J. Sires to Lewis Shaw.

b. The Director, Environmental Division, SR, shall be available to any employee of SCDHEC to ensure full cooperation with SCDHEC by all persons on SRP.

c. The Assistant Manager for Health, Safety and Environment, SR, shall meet periodically with the Deputy Commissioner for Environmental Quality Control, as mutually agreed, to review the relationship between the parties.

4. If SR, for any reason, does not comply with any requirement under the acts and regulations in section 1, then after written notice from SCDHEC of such non-compliance, SR shall provide in writing to the appropriate SCDHEC office the

reasons for not following that requirement, within ten (10) working days. SCDHEC may accept SR's reasons, continue discussions to reach a mutually satisfactory agreement, issue an order directing compliance, including sanctions if appropriate, or seek enforcement in court. SR may comply with such order, or contest such order in an appropriate forum.

5. a. SCDHEC recognizes that classified information, and certain other sensitive information as defined in 10 C.F.R. Part 1017 and Department of Energy Order 5630.8, the dissemination of which is controlled by the Department of Energy, cannot be provided to SCDHEC.

b. Within the bounds of classification, SR will explain the reasons for and the authorities requiring, nondisclosure of any information because of its classified or sensitive nature on a case-by-case basis as the need arises. This explanation will be provided verbally as soon as possible and in writing within ten (10) working days or as mutually agreed upon between SR and SCDHEC.

6. a. SCDHEC recognizes that SR has obligations under the Federal budget process and the National Environmental Policy Act.

b. SR recognizes that SCDHEC has an obligation to enforce State environmental laws and delegated Federal environmental laws.

7. Nothing in this MOA shall prevent SCDHEC from seeking enforcement, or SR from challenging enforcement, of any Federal or State law before a court of competent jurisdiction after completion of the process described in sections 2 through 5 above.

8. Nothing in this MOA shall be deemed an admission of jurisdiction or a waiver of jurisdiction by either party.

9. a. This MOA shall be effective on the date the last signature is affixed hereto.

b. This MOA may be terminated by either party after thirty (30) days notice in writing to the other party.

RC Morgan
Manager, SR

4/8/85
Date

Robert S Jackson MD
Commissioner, SCDHEC

4/8/85
Date

STATEMENT OF
J. WINSTON PORTER
ASSISTANT ADMINISTRATOR FOR
SOLID WASTE AND EMERGENCY RESPONSE
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON GOVERNMENT AFFAIRS
U.S. SENATE

March 17, 1987

Mr. Chairman and Members of the Committee, I am J. Winston Porter, Assistant Administrator for the Office of Solid Waste and Emergency Response. I am the senior official in the Environmental Protection Agency (EPA) directly responsible for implementation of the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund. I appreciate this opportunity to discuss our efforts to implement these programs at facilities owned or operated by the Department of Energy (DOE). With me today are Gene Lucero, Director, Office of Waste Programs Enforcement; and John P. Lehman, Deputy Director, Office of Municipal Pollution Control, former Director, Waste Management Division, Office of Solid Waste; and Lisa Friedman, Associate General Counsel, Solid Waste and Emergency Response Division.

I. INTRODUCTION

Through enactment of RCRA and CERCLA, Congress empowered EPA with the authority to manage hazardous wastes and to remediate the environmental problems caused by improper handling of such wastes and hazardous substances in the past. In order to achieve these goals in a uniform manner throughout this country, Congress intended its mandate for action in waste management to include Federal facilities.

Public concern has arisen, however, regarding the compliance of Federal facilities with RCRA and the adequacy of overall efforts to clean up uncontrolled site problems and respond to releases at existing and former Federal facilities. Additionally, there is public concern about the consistency of the level of cleanup between Federal facility sites and other sites and the consistency of treatment between private "responsible parties" and Federal agencies who have contributed to hazards.

Some time ago EPA Administrator Lee M. Thomas established the goal that waste management and clean-up at Federal facilities serve as a model for the similar activities that we require of the private sector. Our goal is to ensure that the Federal government demonstrate leadership in environmental control practices through Federal facility compliance with air, water, toxic and hazardous waste requirements.

Therefore, it is my intention today to first provide an overview of RCRA and describe how provisions of the statutes apply to DOE. Next, I will discuss CERCLA and the new provisions of the Superfund Amendments and Reauthorization Act (SARA) which apply to DOE. Finally, I will discuss near term actions to bring DOE facilities into compliance.

II. RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

A. General Applicability of RCRA to DOE Facilities

For more than 40 years a primary mission of DOE and its predecessor agencies has been to produce nuclear weapons materials and components. This has entailed the use of chemical processes at many of the DOE facilities throughout the Nation and has resulted in the generation of waste containing hazardous constituents such as solvents, acids, heavy metals and radioactive constituents.

There are currently 29 DOE treatment, storage and disposal facilities identified as hazardous waste facilities. Of these 29 facilities, EPA plans first to focus attention on the 13 major DOE facilities that may pose environmental concern. They include (but are not listed in order of priority):

- Feed Materials Production Center (Fernald), Ohio
- Savannah River Plant, South Carolina
- Hanford Reservation, Washington
- Rocky Flats Plant, Colorado
- Idaho National Engineering Laboratory, Idaho
- Los Alamos National Laboratory, New Mexico
- Lawrence Livermore National Laboratory, California
- Nevada Test Site, Nevada
- Oak Ridge National Laboratory, Tennessee
- K-25 Site, Tennessee
- Y-12 Plant, Tennessee
- Sandia National Laboratory, California
- Portsmouth Uranium Enrichment Plant, Ohio

The hazardous waste management objectives and provisions of RCRA are applicable to DOE facilities. By the express statutory language of RCRA Section 6001, DOE is subject to the provisions of RCRA and its implementing requirements. Moreover, Executive Order 12088 assigns responsibilities to administrators of Executive agencies for (1) the prevention, control and abatement of pollution, and (2) assurance that funds sufficient to attain "compliance with standards" are requested.

B. RCRA Permitting Requirements and Corrective Action

All active Federal treatment, storage and disposal facilities handling hazardous waste must have RCRA permits to operate. This means that all DOE facilities must obtain a permit where hazardous waste is treated, stored, or disposed (other than for an on-site CERCLA cleanup), and that facilities with interim status must be in compliance with the interim status regulations until final disposition of their permit application.

Further, DOE must secure correction of releases of hazardous wastes and constituents at facilities that manage hazardous wastes. Section 3004(u) of RCRA requires corrective action for releases of hazardous wastes or constituents from any solid waste management unit at a treatment, storage or disposal facility that is seeking a RCRA permit. Moreover, Section 3004(v) authorizes EPA to require corrective action beyond the facility boundary. Section 3008(h) of RCRA authorizes the EPA to require corrective action or other necessary response measures whenever it is determined, on the basis of any information, that there is or has been a release of hazardous wastes or constituents from a facility. These authorities ensure that problems that may pose a threat to human health and the environment are corrected at Federal facilities. Moreover, these requirements apply regardless of whether a facility, or part of it, is subject to an action under CERCLA, consistent with Section 121 of that Act.

C. RCRA Compliance

Both States and EPA have enforcement authority over Federal facilities. State and local pollution control officials are encouraged to participate in the EPA compliance assurance process. Further, they are encouraged to be a party to agreements between Federal agencies and EPA which implement solutions to problems at Federal facilities in their State or locale. Their authority to initiate legal action against a Federal facility with a pollution problem is not diminished in any way whether or not they use the process.

Since Fiscal Year (FY) 1985, 52 EPA inspections and 115 State inspections have been conducted at the 29 DOE treatment, storage and disposal facilities. Forty-three Notices of Violation and 10 enforcement actions have been taken at these DOE facilities since FY 1985. Notices of Violation have been taken at the Savannah River Plant, South Carolina; Portsmouth Uranium Enrichment Plant, Ohio; Feed Materials Production Center, Ohio; Los Alamos National Laboratory, New Mexico; Lawrence Livermore National Laboratory, California; Argonne National Laboratory, Illinois; Knolls, Connecticut; Fermi National Accelerator Laboratories, Illinois; Oak Ridge, Tennessee; the K-25 Site, Tennessee;

Sandia National Laboratory, California; and, Paducah, Kentucky. Enforcement actions have been taken at the Feed Materials Production Center, Ohio; Savannah River Plant, South Carolina; Hanford, Washington; Portsmouth Uranium Enrichment Plant, Ohio; Los Alamos National Laboratory, New Mexico; Sandia National Laboratory, California; and, Rocky Flats, Colorado. In an effort to guarantee full compliance at these facilities, EPA has been working with DOE to develop compliance agreements at all major Federal facilities. This will be discussed later.

D. State Authorization for Mixed Waste

For some time, the regulatory status of radioactive mixed waste was unclear. On July 3, 1986, EPA published a notice in the Federal Register, announcing that in order to obtain and maintain authorization to administer and enforce a RCRA Subtitle C hazardous waste program, States must apply for authorization to regulate the hazardous components of radioactive mixed wastes. Radioactive mixed wastes are wastes that contain both hazardous waste subject to RCRA and radioactive waste subject to the Atomic Energy Act (AEA). States which have received EPA authorization prior to July 3, 1986, must modify their programs for radioactive mixed waste by July 1, 1988 (or July 1, 1989 if a statutory amendment is required.) To demonstrate authority to regulate the hazardous waste components of radioactive mixed wastes, States initially applying for final authorization after July 3, 1987, must incorporate this provision in their application for final authorization.

However, no State can receive authorization for corrective action (RCRA §3004(u)) unless the State can demonstrate that its definition of solid waste does not exclude hazardous components of radioactive mixed waste. The reason is that States must be able to apply their corrective action authorities against radioactive mixed waste units as solid waste management units.

To date, only Colorado has received authorization for mixed waste. However, two states, Washington and Texas, have submitted draft applications requesting authorization for mixed waste. These applications are in various stages of review.

E. Mixed Energy Waste Study (MEWS)

In an effort to resolve an ongoing issue regarding the management of mixed waste, EPA recently formed a Mixed Energy Waste Study (MEWS) task force to review DOE's management of high level and transuranic mixed waste. The Atomic Energy Act (AEA) of 1954 contains a statutory mandate to develop and use atomic energy. The Resource Conservation and Recovery Act of 1976 established a broad regulatory scheme governing the generation, transportation and management of hazardous wastes. In light of the different purposes of the AEA and RCRA, it is not surprising that differences of opinion have arisen over the applicability of RCRA to the management of wastes at DOE facilities.

Section 6001 of RCRA explicitly subjects all Federal facilities and their activities to Federal, State, interstate and local requirements concerning waste management practices. Section

1006(a) of RCRA relieves facilities operating under the authority and control of the AEA from compliance with RCRA in those particular circumstances where application of a RCRA regulation or requirement would be inconsistent with requirements of the AEA. Thus, RCRA regulations would not apply if they were in direct conflict with prescriptive directives contained in the AEA itself (e.g., disclosure of restricted data or the prevention of the production of nuclear materials or their components).

In efforts to resolve the questions of inconsistency and to determine what role EPA would play in controlling mixed waste, in November 1986, DOE informally proposed an option for Environmental Protection Agency evaluation in which current and future high-level radioactive (HLW) and transuranic waste (TRU) mixed waste would be exempt from the hazardous waste control program under Subtitle C of RCRA. DOE's premise was that controlling radiation hazards from HLW and TRU waste also controls their chemical hazards.

The MEWS task force visited ten DOE facilities: Savannah River Plant, South Carolina; the West Valley Demonstration Project, New York; Rocky Flats, Colorado; the Waste Isolation Pilot Plant, New Mexico; Los Alamos National Laboratory, New Mexico; Idaho National Engineering Laboratory, Idaho; Hanford, Washington; Lawrence Livermore National Laboratory, California; Oak Ridge National Laboratory, Tennessee; and the Nevada Test Site, Nevada. The task force found that, in general, most of the current DOE management practices for HLW/TRU waste seem comparable to or exceed

RCRA requirements. However, there were a few aspects of HLW/TRU waste management that would probably not meet RCRA standards. Examples include chemical analysis of waste and the "retrievable storage" practice for TRU waste. Also, DOE acknowledges potential RCRA corrective action issues with respect to former HLW/TRU practices.

III. CERCLA

A. General Applicability of CERCLA to DOE Facilities

The scope of potentially uncontrolled hazardous waste sites at Federal facilities is certainly of great importance in determining how the Federal government response should be conducted. In early 1981, EPA received numerous notifications regarding hazardous waste sites as required under section 103(c) of CERCLA. DOE and other federal agencies also submitted section 103(c) notices. The Agency discovered approximately 9,000 sites overall as a result of that notification process as well as through other pre-existing data bases. This comprises our basic inventory of potential uncontrolled hazardous waste sites. The inventory is called CERCLIS. It now contains approximately 26,000 sites; new sites are added on a continuous basis. At present there are approximately 800 Federal facilities identified in CERCLIS; these are mostly still active facilities in Federal ownership. Approximately 43 of these are DOE sites.

In instances where removals are necessary at Federal facilities, Superfund monies may be used. The fund will be reimbursed for any fund money spent by a Federal agency for a Federal facility removal action. Where feasible, the Agency seeks to have the responsible Federal facility conduct any necessary response action.

Any Federal response action must be done in accordance with the National Contingency Plan.

With respect to sites at Federally-owned facilities, EPA is prohibited by section 111(e)(3) of CERCLA from spending fund monies to finance remedial action. However, it is important for the Committee to note that this provision does not mean that the release goes unattended.

B. Superfund Amendments and Reauthorization Act (SARA) of 1986

The Superfund Amendments and Reauthorization Act of 1986 makes it clear that Superfund applies to Federal agencies, both procedurally and substantively. The specific requirements for Federal agencies are found in Section 120 entitled "Federal Facilities." Section 120 sets forth a process to ensure that Federal agencies assess and clean up their hazardous waste sites within specified timeframes. This process is under EPA's oversight and provides States and citizens the opportunity to be involved. The process includes the following components:

o Hazardous Waste Compliance Docket - EPA is required to establish a special Federal Agency Hazardous Waste Compliance Docket. This docket contains information that was submitted under the inventory requirements of RCRA Sections 3016, 3005, 3010 and CERCLA Section 103 and will track actions taken at Federal facilities. Every six months EPA will publish an update in the Federal Register of sites added to the docket during the preceding six month period. The docket will be maintained in the Regional offices and is available to the public for inspection at reasonable times.

o Response Action Schedule - The Superfund Amendments and Reauthorization Act (SARA) establishes a schedule for response action at Federal facilities. By April 1988, EPA must assure that a preliminary assessment is conducted for each facility in the docket. By April 1989, EPA must evaluate docket facilities for possible inclusion on the National Priorities List (NPL). Federal facilities and private facilities are evaluated for listing using the same criteria, the Hazard Ranking System (HRS).

Once a facility is listed on the NPL, the Federal agency has six months to start a Remedial Investigation/Feasibility Study (RI/FS). EPA, in consultation with the State, will publish a timetable and deadlines for the expeditious completion of the RI/FS. Once the RI/FS is completed, EPA will review the results.

o Interagency Agreements (IAGs) - After EPA has reviewed the RI/FS, EPA and the Federal agency have 180 days to enter into an Interagency Agreement (IAG) for the completion of all necessary remedial action at the NPL site. EPA and the Federal agency must make a joint decision on which alternative to implement for cleanup. However, if EPA and the Federal agency are not able to agree on a remedy, EPA has the ultimate authority to select the remedy. I want to make clear that the new Superfund Executive Order 12580 in no way alters EPA's authority in this regard.

At a minimum, the IAG will contain a discussion of the alternatives and the selected remedy, a schedule for completion of the remedy, and arrangements for long term operation and maintenance of the facility. The IAG will be available for public comment, and it is subject to the public participation requirements of CERCLA Section 117.

- Facilities that do not qualify for the NPL - There will also be facilities that do not score high enough to be placed on the NPL. State laws concerning removal and remedial action, including State laws regarding enforcement, apply to these non-NPL facilities. These authorities will be construed consistent with section 121. Federal agencies themselves have primary responsibility for assessments, studies and remedies selected for clean-up of non-NPL sites. Federal agencies must also report to Congress each year on their progress in implementing the requirements of Section 120 at both NPL and non-NPL sites.

- State Participation Requirements - The State participation requirements found in Section 121 are very important and greatly expand the State's role. The State must be given the opportunity to review and comment on the RI/FS and the remedy and any related data and documents.

Prior to publication of a final remedial action plan that would not meet a legally applicable or relevant and appropriate standard, the State is given the opportunity to concur or not concur. If the State concurs or does not act within 30 days, the remedial action at a Federal facility may proceed. Otherwise, the State can bring a court action to determine whether the remedy should be modified to conform to the State standard.

C. Federal Facility Listing Policy

On February 12, 1985, EPA proposed amendments to the National Contingency Plan (NCP), the Federal regulation by which CERCLA is implemented, which provided for the inclusion of Federal sites on the NPL. EPA has scored Federal facility sites using the Hazard Ranking System (HRS), and has proposed for listing on the NPL those that scored equal to, or greater than 28.50. Of the 48 proposed Federal facilities, 3 DOE sites have been proposed on the NPL. They are Rocky Flats, Colorado; Lawrence Livermore National Laboratory, California; and Weldon Spring, Missouri.

IV. NEAR TERM ACTIONS

Now that we have briefly discussed the provisions of RCRA and CERCLA, I would like to emphasize that both authorities can apply at DOE facilities. Although the number of DOE facilities is relatively small in comparison to the universe of hazardous waste facilities, the size of the facilities and the relative magnitude of environmental issues at these facilities are of great concern to EPA. Therefore, EPA has been working with DOE and the States to develop appropriate compliance agreements at each DOE facility.

A prime example is an enforceable compliance agreement developed for Rocky Flats, Colorado by the DOE, the State of Colorado, and EPA which was signed on July 31, 1986. This agreement was the result of a successful effort to develop an enforceable technical program for the clean-up of hazardous and radioactive mixed wastes at the facility. In summary, the provisions of the agreement require the characterization of waste streams for RCRA hazardous substances, and also require that corrective action be taken at RCRA solid waste management units, and in areas where CERCLA hazardous substances are found.

Another example is the agreement for the Feed Material Production Center in Fernald, Ohio which was executed in July 1936. This agreement requires DOE to take all necessary actions to comply with the provisions of RCRA and CERCLA and the Clean Air Act. Other examples include the Portsmouth Uranium Enrichment Plant, Ohio, at which a compliance agreement was signed in September 1986. It requires compliance with the provisions of RCRA. EPA was also instrumental in negotiations with the State at Hanford, Washington. Finally, the Weldon Spring, Missouri agreement, signed in August 1986, requires the DOE to conduct an RI/FS under CERCLA.

Looking ahead, a compliance agreement between Idaho National Engineering Laboratory (INEL) and EPA Region X is currently being developed. The agreement will outline a phased approach for bringing INEL's solid waste management units into compliance with RCRA requirements. Also, EPA Region IV and the State of South Carolina are currently developing a compliance agreement with the Savannah River Plant, South Carolina, which will specify corrective action.

I plan to work with DOE's Assistant Secretary of Environmental Safety and Health and the appropriate States to develop a schedule whereby DOE, EPA, and the States will negotiate appropriate compliance agreements at any remaining major DOE facilities that are not in compliance.

In closing, I believe that although there is substantial work yet to be conducted, we are making real progress on hazardous waste compliance at DOE facilities. I remain confident that we can continue to build and strengthen a DOE facility compliance and cleanup program that will demonstrate to the nation that the Federal government is serious about control of its own pollution.

Thank you for the opportunity to address you today. I would be happy to respond to any questions you might have.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 31 1987

OFFICE OF
GENERAL COUNSEL

Honorable John Glenn
Chairman
Committee on Governmental Affairs
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Dr. Porter has asked me to respond to your June 1 letter concerning issues addressed during your March 17 hearing on Department of Energy (DOE) compliance with hazardous waste requirements. The questions raised in the letter and our responses appear below.

1. Question: In Washington State's testimony, the state points out that DOE has taken a position that U.S. EPA does not have the authority to issue or enforce regulatory orders against federal facilities and that this issue has been referred to the Justice Department which is taking the same position as DOE. What is EPA's position on whether or not it has the authority to take compliance actions against Federal agencies?

Answer: It is EPA's position that it has authority to issue administrative compliance orders to other Federal agencies under both RCRA and CERCLA. DOJ and DOE now agree that the Agency has authority to issue such orders under Sections 3008(h) and 3013 of RCRA and Sections 104(e)(5)(A) and 106 of CERCLA. EPA would use dispute resolution processes within the Executive Branch to enforce such orders; the Agency could not, however, enforce those orders in court.

2. Question: What is the status of the Justice Department memorandum on EPA's RCRA authority over Federal facilities?

The Justice Department's views on EPA's authority to issue administrative orders to Federal facilities are set out in the Statement of F. Henry Habicht, II, Assistant Attorney General for Land and Natural Resources, before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives, concerning Federal Facility Compliance with Environmental Laws (April 28, 1987), including Appendices.

We have been advised that the Justice Department does not presently intend to issue any further written memoranda on the subject.

3. Question: Under Executive Order 12580, EPA must apparently obtain concurrence of the Attorney General before taking action against Federal agencies under CERCLA. Please explain precisely what the approval process under this executive order is for EPA's CERCLA actions and the legal basis for obtaining approval from outside EPA.

Answer: Executive Order 12580 provides that EPA may issue CERCLA Section 106(a) orders and 104(e)(5)(A) orders to Federal facilities only with the concurrence of the Attorney General. EPA and the Department of Justice have not yet worked out the mechanics of this concurrence process.

Sections 106(a) and 104(e)(5)(A) of CERCLA authorize the President to exercise the authorities set out in those sections. Section 115 of the statute authorizes the President, without qualification, to delegate any powers assigned to him. In drafting the original CERCLA and the 1986 amendments to CERCLA, Congress decided that the authorities in CERCLA should generally be assigned by statute to the President for his later delegation to the heads of various departments and agencies, not directly to those department and agency heads.

4. Question: Please provide the Agency's comments to DOE and OMB regarding promulgation of the Department of Energy's proposed "Byproduct Rule" (50 FR 45736, November 1, 1985), both as proposed rule and any final rule or alternatives for a final rule now pending.

Answer: A copy of EPA's written comments on DOE's November 1, 1985 proposed rule is enclosed. EPA did not provide any written comments on DOE's May 1, 1987 final "Byproduct Rule", but did advise DOE orally that the rule was consistent with EPA's interpretation of the "byproduct" exemption under RCRA.

5. Question: One of DOE's proposed alternatives to the proposed Byproduct Rule is to preempt state regulation and rely on U.S. EPA to regulate. What is the Agency's position concerning preemption of state RCRA jurisdiction over Department of Energy facilities?

Answer: As you know, Section 6001 of RCRA requires DOE to comply with certain state and local solid and hazardous waste management requirements. The Agency does not believe that, as a general matter, it has the authority to preempt these requirements. However, Section 1006(a) of RCRA would prevent states from regulating DOE waste management operations to the extent such regulation was inconsistent with Atomic Energy Act requirements.

Finally, you asked about the status of the analysis of state penalty authority which was requested by Senator Mitchell at the March 17 hearing. We have been working on this analysis and hope to be able to forward it to you by the end of August.

Sincerely yours,

Francis S. Blake
General Counsel

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
EXTERNAL AFFAIRS

Henry K. Garson, Esquire
Assistant General Counsel
for Environment
Department of Energy
Room 6A-113, Forrestal Building
Washington, D.C. 20585

Dear Mr. Garson:

In accordance with Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency has reviewed the Department of Energy's proposed "Byproduct Rule" (10 CFR 962; 50 FR 45736). The rule is based upon DOE's interpretation of the Atomic Energy Act, as it relates to wastes handled by DOE facilities. EPA does not address here the merits of DOE's interpretation but rather the impact of the definition on EPA's regulatory program under RCRA.

EPA does not believe that a regulatory definition of "byproduct material" is necessary in order to delineate the boundary between RCRA and the Atomic Energy Act. In fact, we are concerned that the proposed regulatory approach may not be as satisfactory as the current method for categorizing waste streams. EPA has generally been satisfied with the existing process whereby lists of waste streams have been developed by DOE's operational offices. These lists, which are published in booklet form, denote which DOE wastes DOE considers to be byproduct material. (The public availability of the current set of booklets was noticed in the preamble to the November 1 Federal Register notice.) We believe that the resulting lists generally would recognize RCRA jurisdiction over appropriate wastes. EPA prefers that the existing procedure be maintained and strengthened by closer coordination between our agencies. EPA suggests that a memorandum of understanding be developed between our agencies with the goal of using the lists to specify which DOE wastes will be subject to RCRA regulations.

If, however, you continue with a regulatory definition, it would be preferable to employ the definition in the Atomic Energy Act. Whatever the published definition, EPA still would consider it necessary to include as an appendix to the regulation a list of DOE wastes, specifying which wastes are, in their entirety, byproduct material, and thus exempt from RCRA regulation.

If you have any questions concerning our comments, please contact Dr. W. Alexander Williams of my staff.

Sincerely,

Allan Hirsch
Director
Office of Federal Activities

PREPARED STATEMENT OF MARY L. WALKER

Mr. Chairman and Members of the Committee, I am pleased to be here today to discuss with you environmental conditions at DOE's Atomic Energy Defense Facilities. Accompanying me are Don Ofte, Principal Deputy Assistant Secretary for Defense Programs; Michael Lawrence, Manager of the Richland Operations Office; Joseph LaGrone, Manager of the Oak Ridge Operations Office; Robert Morgan, Manager of the Savannah River Operations Office, and Raymond Berube, Acting Director of the Office of Environmental Guidance and Compliance.

SECRETARY HERRINGTON'S PERSONAL COMMITMENT

Secretary Herrington has made a personal commitment to operate the Department of Energy's facilities in a safe and environmentally sound manner. The Secretary put his commitment into action in September 1985 with the adoption of major initiatives in the environment, safety and health function within DOE and in January 1986 with his written Environmental Policy Statement governing DOE's operations.

These major initiatives include:

(1) Oversight responsibility for the environment, safety, and health function in the Department has been consolidated and upgraded under the new position of an Assistant Secretary for Environment, Safety and Health (ES&H).

(2) A baseline Environmental Survey of DOE facilities to identify existing environmental problems and areas of potential risk and to prioritize DOE-wide corrective actions. The Survey activities, which began in June 1986 at Fernald, are expected to be completed in mid-Fiscal Year 1989. The results will enable the Department to develop long-range planning for correcting environmental problems and reducing potential risks.

(3) Technical Safety Appraisals of DOE's nuclear facilities are being conducted to determine compliance with safety requirements, industry lessons learned, and licensed facilities requirements. In keeping with the Secretary's commitment, they look beyond compliance to excellence. These are on-site technical appraisals of all aspects of safety, including nuclear reactor safety, nuclear process facility safety, health physics, training, emergency preparedness, occupational medicine, occupational safety, fire protection safety, and transportation and packaging safety. The Technical Safety Appraisals, begun in February 1986, will be completed in about 3 years. Recommended corrective actions requiring significant capital outlays will also be prioritized for long-range planning.

Although both the Survey and the Technical Safety Appraisal teams are DOE led and managed by my offices of Environmental Audit and Nuclear Safety, the majority of the teams' members are outside technical experts with considerable experience in their fields.

(4) Other elements of the Department's strengthened Environment, Safety and Health program include regular field reporting, a Computer Assisted Tracking System, and a more aggressive ES&H role in the development and implementation of environmental and safety policies for the Department. More detailed guidance implementing the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are underway. We have also significantly increased the Department's liaison with state and Federal regulatory agencies. Pursuant to the Secretary's Environmental Policy, we have established a systematic process for coordinating and resolving the Department's environmental compliance issues.

I believe we have made significant progress in implementing the Secretary's initiatives and I would like to share with the Committee some of our accomplishments over the last eighteen months.

THE NEW ES&H ORGANIZATION

The new ES&H organization has been established and assigned the authority necessary to fulfill its oversight role. More specifically, in connection with the consolidation and reorganization of the ES&H function within DOE, we have revised and reissued six internal DOE ES&H orders to increase the ES&H organization's direct involvement in activities at all levels of the Department and to greatly strengthen ES&H's authorities in exercising its oversight role. With respect to resources, our current staffing level reflects a 50 percent increase over the September 1985 level and our funding level reflects a 60 percent increase. In addition, the President's budget request for Fiscal Year 1988 provides further increases of 10 percent in staffing and 13 percent in funding.

THE ENVIRONMENTAL SURVEY

After an intensive nine month planning, recruiting and training effort, the Survey program initiated survey team on-site activities in June 1986 at the Feed Materials Production Center in Ohio. "On-Site activities" includes review of existing site environmental data, interviews of site personnel, and observations of operations conducted at the site. We have also completed on-site activities at the Mound Laboratory in Ohio, the Hanford Site in Washington, the Rocky Flats Plant in Colorado, the Portsmouth Plant in Ohio, the Pantex Plant in Texas, the Oak Ridge Y-12 Plant in Tennessee, the Lawrence Livermore National

Laboratory and Sandia National Laboratory (Livermore) in California, and the Savannah River Plant in South Carolina. We expect to complete a preliminary report for each of these sites this year.

THE TECHNICAL SAFETY APPRAISALS

The Technical Safety Appraisal (TSA) program initiated on-site activities in February 1986 at the Fast Flux Test Facility on the Hanford Site in Washington. We have now also completed TSA's and related reports for the Feed Materials Production Center in Ohio, the H-area Reprocessing Plant at the Savannah River Plant in South Carolina, the N Reactor at the Hanford Site in Washington, Savannah River Plant Production Reactors in South Carolina, the Oak Ridge Y-12 Plant in Tennessee, Buildings 707, 771, and 774 at the Rocky Flats Plant in Colorado, the Plutonium Facility at the Lawrence Livermore National Laboratory in California, and the Portsmouth Plant in Ohio.

THE SECRETARY'S ENVIRONMENTAL POLICY

As a continuation of his commitment to ensure that DOE's operations are environmentally sound, the Secretary reaffirmed, in January 1987, the Department's Environmental Policy Statement, originally issued in January 1986. The Policy Statement forth the framework for the Department to meet its environmental obligations.

The policy states that "... protection of the environment and the public are responsibilities of paramount concern and importance ..." The policy firmly commits DOE "...to assuring incorporation of national environmental protection goals in the formulation and implementation of DOE programs." The policy statement contains four major points:

(1) First, as a matter of public trust, the Department considers it an obligation to conduct its operations in a safe and environmentally sound manner;

(2) Second, it is the policy of DOE "to conduct its operations in compliance with the letter and spirit of applicable environmental statutes, regulations, and standards;"

(3) Third, the Department pledges itself to exercise good environmental management by seeking to minimize risks to the environment or public health; and

(4) Fourth, DOE expects its operating contractors to share its commitment to good environmental management and to conduct their operations in an environmentally sound manner. DOE will actively oversee contractors' activities to assure compliance with this policy.

I believe the Department is making significant progress in attaining the goals embodied in the Secretary's Environmental Policy. An important indicator of this progress is the successful efforts we are making in working cooperatively with EPA and the states toward achieving full compliance with environmental requirements at DOE facilities. For example, over the last twelve months, we have entered into 12 formal written agreements with EPA and/or states on measures to correct deficiencies in complying with environmental requirements.

ENVIRONMENTAL CONDITIONS AT DOE SITES

I would now like to address the environmental conditions and the corrective actions DOE is taking at those DOE sites of particular interest to the Committee.

Feed Materials Production Center

DOE acknowedges that there have been and still are significant environmental problems at the Feed Materials Production Center (FMPC) in Fernald, Ohio. The main areas of environmental concern include radioactive air emissions and associated monitoring, wastewater treatment, storm water runoff, on-site and off-site groundwater contamination, on-site and off-site soil contamination, and waste disposal practices and facilities. DOE has taken many actions in response to the problems at FMPC and I would like to summarize a few of the more important ones:

(1) DOE's Oak Ridge Operations Office has entered into a Federal Facilities Compliance Agreement (FFCA) with EPA Region V. The agreement, executed on July 19, 1986, commits DOE to attain compliance with the Clean Air Act (CAA), the Resource Conservation and Recovery Act (RCRA), and to undertake appropriate actions under the Comprehensive Environmental Response, Compensation, and

Liability Act (CERCLA). Under the agreement, DOE is conducting a site-wide CERCLA remedial investigation and feasibility study as well as initiating actions to attain compliance with RCRA and CAA requirements.

(2) DOE has put into effect a comprehensive Air Pollution Control Program to minimize air emissions and upgrade air emission controls. Corrective actions taken to reduce stack emissions from dust collectors have resulted in a significant decrease in uranium releases. All 59 air emission points with the potential to emit large amounts of radionuclides are equipped with in-stack samplers. Twenty-two of these emission points are also equipped with breakthrough monitors which give an immediate alarm in the event of failure (breakthrough) of the filter system. Future additional breakthrough monitors are planned.

(3) An investigation of uranium concentrations in groundwater has been completed. The results indicate that contaminated storm water runoff from the plant production area and waste pit storage areas may have percolated into a shallow groundwater aquifer. Recommendations to partially control runoff have been implemented and other recommended actions are under evaluation by DOE.

(4) Fourth, a detailed radiation survey of the FMPC site has been conducted, including an overflight survey of the site and surrounding areas. The radiation survey

indicates that surface contamination is confined to the FMPC site property except for a small off-site area adjacent to an inactive incinerator.

(5) A study of the FMPC chemical storage tank farm was conducted to identify any weaknesses prior to the design phase of the renovation effort. Short-term recommendations have been implemented to mitigate weaknesses in areas such as inspection procedures and personnel training. The chemical storage tanks will be upgraded to meet current standards.

(6) Dome covers have been placed on the K-65 silos in response to identified structural weaknesses. Additional recommendations are under evaluation and have been submitted to EPA for review and comment.

Portsmouth Uranium Enrichment Complex

The main areas of environmental concern at the Portsmouth Uranium Enrichment Complex in southcentral Ohio include air emissions and associated monitoring, on-site groundwater contamination, on-site soil contamination, PCB contamination in and around the plant buildings, and deficiencies in hazardous waste management.

Some of the significant response actions DOE has taken to address environmental problems at the Portsmouth Complex are summarized as follows:

(1) DOE and EPA entered into a Federal Facility Compliance Agreement (FFCA) on September 30, 1986, to ensure compliance by DOE with the RCRA at Portsmouth. A

compliance plan with specific deliverables and dates was included in the FFCA. To date, DOE has met all scheduled deliverables.

(2) DOE installed 56 new groundwater monitoring wells in 1985 and also contracted for a study to determine the sources and extent of groundwater contamination.

(3) DOE is in the process of installing 4 additional air monitors and determining whether 13 other air emission points require monitors. In addition, the permitting process is underway for the small number of remaining unpermitted air emission sources and a study is also underway to find ways to reduce fluoride emissions.

(4) A biodenitrification pilot plant began operation in 1984. The pilot plant has provided valuable data for design of a full scale plant while reducing discharge of nitrates to the environment. Construction of the full-scale plant began in March 1986 and it is scheduled to become operational in January 1988, pursuant to the schedule agreed to by DOE and the Ohio EPA.

(5) A new facility was completed in September 1985 for decommissioning PCB transformers and shipping PCB contaminated fluids off-site.

Mound Facility

The main areas of environmental concern at the Mound Facility in southwestern Ohio include on-site and offsite tritium contamination in a drinking water aquifer, on-site groundwater contamination by volatile organics, and off-site residual deposits of plutonium in the dry Miami-Erie Canal and associated ponds and waterways due to a 1969 pipe rupture.

Some of the response actions DOE has taken to address the environmental problems at the Mound Facility are summarized as follows:

(1) DOE monitors the concentration of tritium in the aquifer and conducts remedial pumping, as necessary, to keep the concentrations within EPA's drinking water standard for tritium. In addition, DOE is conducting a geohydrological investigation of the aquifer in the vicinity of Mound to establish a groundwater monitoring system to identify and correct the sources of groundwater contamination. The indications of volatile organics contamination as well as the tritium contamination are also being addressed by DOE under an ongoing effort under CERCLA. The investigation plans associated with this effort have been released by DOE, and the site investigation work has commenced.

(2) The off-site residual deposits of plutonium that remained after the cleanup following the pipe rupture in 1969 were extensively studied by DOE, EPA and the State of Ohio in the 1970's with the finding that the residual deposits did not represent an immediate health

hazard. DOE conducts monitoring for residual plutonium in the air and drinking water to confirm the continuing validity of this finding.

Rocky Flats Plant

The main areas of environmental concern at the Rocky Flats Plant in Colorado include on-site groundwater contamination, on-site and off-site soil contamination, and hazardous waste management.

These environmental concerns are being addressed under a landmark Compliance Agreement negotiated by DOE, EPA Region VIII, and the State of Colorado, in which I personally participated, and which was entered into on July 31, 1986. The agreement contains an aggressive schedule to prepare revisions to RCRA permit applications and closure plans, prepare lists of waste management units, plan and conduct a site-wide CERCLA remedial investigation and feasibility study, develop waste analysis plans, and install groundwater monitoring wells.

Los Alamos National Laboratory

The main areas of environmental concern at the Los Alamos National Laboratory in northern New Mexico include localized on-site groundwater contamination, on-site soil contamination, hazardous waste management, and wastewater discharges.

Concerns related to groundwater and soil contamination are being addressed by DOE under an ongoing effort under CERCLA to characterize and, as appropriate, correct all past disposal sites and field testing areas that have the potential for releases of hazardous substances. In addition, these concerns along with concerns regarding hazardous waste management are likely to be addressed under future RCRA permitting actions.

DOE's response actions to concerns regarding wastewater discharges include construction of improvements for wastewater outfalls under a Federal Facilities Compliance Agreement and a new consolidated sanitary treatment plant, prepared as a FY 1988 line item.

Hanford Site

The main areas of environmental concern at the Hanford Site in the State of Washington include on-site groundwater contamination, on-site soil contamination, and hazardous waste management.

Some of the actions being taken at the Hanford Site to address these environmental concerns are summarized as follows:

(1) DOE is now in the process of submitting a plan to Congress on eliminating the use of soil columns at Hanford. The use of soil columns is believed to be the primary source of groundwater and soil contamination at Hanford.

(2) DOE is in the process of installing additional groundwater monitoring wells under an October 1, 1986 Consent Agreement and Compliance Order between DOE and the state on RCRA compliance. As of the end of January 1987, 41 wells had been completely installed. At a minimum, an additional 35 to 40 wells are expected to be installed by the end of November 1987. In addition, several impoundments known to have leaked wastewater are being closed pursuant to RCRA closure requirements.

(3) DOE has an ongoing effort under CERCLA to characterize all past disposal sites and other areas that have the potential for releases of hazardous substances. A total of 337 inactive waste sites and approximately 300 past spills and unplanned releases have been identified and will be assessed to determine whether further action is required.

(4) DOE is preparing a comprehensive list of waste management units, including all radioactive and radioactive mixed waste units, regardless of regulatory authority. DOE expects to complete the final list by mid-May 1987 and will share draft information with EPA and the State of Washington in the interim. The comprehensive list will include detailed information about each site and should, in conjunction with information from DOE's efforts under CERCLA, provide a sound basis for DOE, EPA, and the State to cooperatively plan needed remedial actions.

Y-12 Plant

The main areas of environmental concern at the Y-12 Plant in Oak Ridge, Tennessee include groundwater contamination, soil contamination, wastewater disposal practices, and hazardous waste management. More specifically, radionuclides, volatile organic compounds, heavy metals, nitrates, and PCBs have contaminated soils and groundwater at the Bear Creek Valley Waste Disposal Area and have caused degradation of the surface waters and sediments of Bear Creek. The loss of process materials, primarily mercury, has contaminated the East Fork Poplar Creek and soils onsite and offsite.

The Department is taking actions to correct and control these problems at Y-12. For example, at the Civic Center where mercury contaminated soil from Y-12 was used for construction, a project to reduce the level of mercury has been completed. Remedial studies to reduce mercury levels at other off-site locations are underway. In addition, an extensive program to monitor known areas of contaminated soil and identify new areas is ongoing. To oversee DOE's actions and recommend additional actions, an inter-agency task force was created and continues to study the extent of contamination in the soils, stream sediments, and groundwater.

In May 1985, EPA Region IV issued an NPDES permit which contains an ambitious compliance schedule aimed at resolving issues related to wastewater discharges to surface waters. DOE is actively working towards meeting the schedule contained in the permit.

Additionally, a RCRA permit incorporating a compliance schedule for dealing with continuing releases from solid waste management units pursuant to Section 3004(u) of RCRA was issued in September 1986 to the Oak Ridge Site. This schedule addresses most of the known contaminated areas, including those off-site.

Savannah River Plant

The main areas of environmental concern at the Savannah River Plant in South Carolina include on-site groundwater contamination, soil contamination, and discharges to surface waters. Groundwater is known to be contaminated with various solvents, nitrates, tritium, and heavy metals. Soils are contaminated with elevated levels of radionuclides. In addition, discharges of cooling water from one reactor and a coal-fired power plant exceed the applicable limits and state water quality thermal standards.

DOE has been making great efforts to better define the extent of groundwater contamination by installing many more wells and by sampling for many more hazardous constituents than in the past. In addition, in the M-Area, a groundwater treatment program is underway. A production scale air stripper to remove volatile organics from the groundwater was installed in the spring of 1985 and is fully operational.

Other steps to control groundwater and soil contamination involve closure of several seepage basins pursuant to RCRA requirements and replacing the basins with treatment facilities. DOE has built one such effluent treatment facility which became operational in August 1985. In addition, plans for construction of two other effluent treatment facilities are in progress for treatment of other wastes currently going to seepage basins. Start up of these facilities is expected to occur prior to November 1988.

DOE is preparing an Environmental Impact Statement (EIS) to evaluate options available for mitigating the thermal effluents that are currently discharged from a production reactor and a coal-fired power plant. DOE is also preparing an EIS to evaluate options available for protection of groundwater as related to waste management practices.

Finally, DOE has entered into a number of negotiated consent orders and settlement agreements with the State of South Carolina to resolve various issues related to permitting requirements and violations of the State's environmental statutes.

Byproduct

Before concluding my testimony this morning I would like to inform the Committee of a development on the issue of the exemption for "byproduct material" under the Resource Conservation and Recovery Act. As you may know, the Department has been conducting a "policy review" of this matter to assure that all aspects of the byproduct rulemaking were thoroughly assessed and that all related actions by DOE would be consistent with Secretary Herrington's Environmental Policy Statement. In late December 1986, as a result of the policy review, the Department decided not to adopt the byproduct rule as proposed in 1985. We expect to be able to inform you on further developments on this issue in the near future.

Conclusion

While we believe we are making progress in meeting the Department's environmental obligations, we also recognize that there are many problems still to be corrected. However, we believe that we are "turning the corner" and are now on a course which will lead to DOE becoming a model good neighbor. This course is not an easy, quick, or inexpensive one. On the contrary, it will be difficult, it will take years --maybe a full decade, and it will be expensive to bring up to today's environmental standards hundreds of facilities many of which were built two, three, or four decades ago. Secretary Herrington inherited a "legacy of problems" but he is committed to bequeathing a "legacy of solutions."

I thank the Committee for its attention and look forward to answering your questions.

Department of Energy,
Washington, DC, July 31, 1987.

Hon. **John Glenn,**
Chairman, Committee on Governmental Affairs, U.S. Senate, Washington, DC.

Dear Mr. Chairman: On March 12, 1987, Mary Walker, Assistant Secretary for Environment, Safety, and Health appeared before the Committee on Governmental Affairs to discuss DOE reactor safety. Ms Walker was accompanied by Don Ofte, then Principal Deputy Assistant Secretary for Defense Programs and Del Bunch, Deputy Assistant Secretary for Safety, Health, and Quality Assurance. On March 17, 1987, Ms. Walker appeared before the Committee to discuss environmental issues at DOE facilities. Ms. Walker was accompanied by Mr. Ofte, Michael Lawrence, Manager, Richland Operations Office; Joe LaGrone, Manager, Oak Ridge Operations Office; Robert Morgan, Manager, Savannah River Operations Office; and Ray Berube, Acting Director, Office of Environmental Guidance and Compliance.

Following those hearings, you submitted written questions for our response to supplement the record. Enclosed are the answers to those questions, which also have been sent to the Committee staff.

If you have any questions, please call Michael Gilmore or Tom Todd on 586-4277. They will be happy to assist you.

Sincerely.

Thomas Todd,
Robert G. Rabben,
Assistant General Counsel for Legislation.

Enclosures.

Question 1. Please provide the Department's pending proposals concerning final promulgation of a rule defining Byproduct Material in the rulemaking initiated in November 1985 (50 FR 45736-45738 November 1, 1985).

Answer. On May 1, 1987, the Department published in the Federal Register (52 FR 15937) a final interpretive rule clarifying DOE's obligations under the Resource Conservation and Recovery Act (RCRA). The effect of the rule is that all DOE radioactive waste which is also hazardous under RCRA is now subject to joint regulation under both RCRA and the Atomic Energy Act (AEA). A copy of the Federal Register notice is attached.

15937

Federal Register
Vol. 52, No. 84
Friday, May 1, 1987

DEPARTMENT OF ENERGY

10 CFR Part 962

Radioactive Waste; Byproduct Material

AGENCY: Department of Energy.

ACTION: Final rule.

SUMMARY: The Department of Energy (DOE) today is issuing a final interpretative rule under section 161p. of the Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*; hereinafter "the AEA") for the purpose of clarifying DOE's obligations under the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*; hereinafter "RCRA"). The purpose of this final rule is to interpret the AEA definition of the term "byproduct material," set forth in section 11e(1) of that Act (42 U.S.C. 2014(e)(1)), as it applies to DOE owned or produced radioactive waste substances which are also "hazardous waste" within the meaning of RCRA. The effect of this rule is that all DOE radioactive waste which is hazardous under RCRA will be subject to regulation under both RCRA and the AEA. This rule does not affect materials that are defined as byproduct material under section 11e(2) of the Atomic Energy Act.

EFFECTIVE DATE: June 1, 1987.

FOR FURTHER INFORMATION CONTACT: Henry K. Garson, Esq., Assistant

General Counsel for Environment, GC-11, Department of Energy, 1000 Independence Avenue SW., Washington, DC 20585, Telephone (202) 586-6947.

Raymond P. Berube, Acting Director, Office of Environmental Guidance and Compliance, EH-23, Department of Energy, 1000 Independence Avenue SW., Washington DC 20585, Telephone (202) 586-5680.

SUPPLEMENTARY INFORMATION:

Background

RCRA establishes a comprehensive regulatory scheme, administered by the Environmental Protection Agency (EPA) and EPA-authorized States, governing the generation, transportation, treatment, storage and disposal of hazardous waste. Federal agencies are required by section 6001 of RCRA (42 U.S.C. 6961) to comply with the requirements of that regulatory scheme in the same manner, and to the same extent, as any private person or entity. Under section 1004 of RCRA (42 U.S.C. 6903), the "hazardous waste" governed by RCRA is a subset of the statute's definition of "solid waste." The definition of "solid waste," however, expressly excludes "source, special nuclear, or byproduct material as defined by the Atomic Energy Act." Those materials, instead, continue to be regulated under the AEA either by the Nuclear Regulatory Commission (NRC) or by DOE.

The AEA's definitions of the terms "source material" and "special nuclear material" are specific in nature, and present no particular difficulty of interpretation. The AEA's definition of "byproduct material," in contrast, speaks only generally of "any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material." AEA section 11e(1), 42 U.S.C. 2014(e)(1). The lack of specificity in this definition, coupled with RCRA's exclusion of byproduct material from its hazardous waste regulatory scheme, has raised a question concerning which DOE radioactive waste streams, if any, should be considered byproduct material not subject to regulation under RCRA.

The Proposed Rule

On November 1, 1985, DOE published a notice of proposed rulemaking (50 FR 45736) in which it proposed to adopt an interpretative rule clarifying RCRA's applicability to DOE radioactive waste. Briefly summarized, that proposed rule would have established a distinction between "direct process" radioactive waste (*i.e.* waste directly yielded in, or necessary to, the process of producing and utilizing special nuclear material) and other radioactive waste less proximate to the physical process of producing or utilizing special nuclear material. Under the proposed rule, direct process waste, even if it contained hazardous material, would have been regarded as byproduct material, and thus would be regulated exclusively under the AEA. Any radioactive waste other than direct process waste, if it contained hazardous material, would have been considered "mixed waste" subject to regulation under both RCRA and the AEA.

As DOE noted the Federal Register preamble to the proposed rule, the legislative history of the AEA provides little guidance in interpreting the statutory definition of byproduct material, and application of the definition has not been clarified by judicial interpretation. Because the plain words of the definition are keyed to the process for producing and utilizing special nuclear material, however, it seemed that process must be regarded as a critical factor in determining whether particular radioactive materials fell within the definition. Accordingly, one significant feature of the "direct process" approach, as discussed in the preamble to the proposed rule, was its congeniality with the bare text of the statutory definition of byproduct material.

A major consequence of the "direct process" approach was the fact that it would result in the exclusive regulation of all direct process waste under the AEA. Just as the legislative history of the AEA provides little help in interpreting the statutory definition of byproduct material, the legislative history of RCRA is silent on the intended effect of RCRA's exclusion from its coverage of source, special nuclear and byproduct material. Nevertheless, DOE assumed that that exclusion was intended by the Congress to be applied to radioactive wastes in their real-world configuration. Virtually all radioactive waste substances are contained, dissolved or suspended in a nonradioactive medium from which their physical separation is impracticable. Accordingly, DOE noted in proposing the "direct process" approach that unless some radioactive waste streams were considered to be byproduct material *in their entirety*, RCRA's exclusion of byproduct material might reasonably be perceived to have little effect, because RCRA's application to a nuclear waste's nonradioactive medium would appear to entail at least the indirect regulation of the radionuclides dispersed in the medium.

Such a result, in DOE's view, presented substantial legal questions. Previous court decisions had settled the point that the AEA generally vests in DOE and the NRC exclusive regulatory authority over the radiation hazards associated with source, special nuclear and byproduct material, and generally preempts the States from regulating those materials.[1] It had also been held that when the radiation and nonradiation hazards of a waste containing byproduct material are inseparable, regulatory action under the AEA preempts the incompatible exercise of general state nuisance authority over the waste.[2] These decisions, read in conjunction with RCRA's affirmation of state regulation as an acceptable, indeed a favored, alternative to EPA regulation, were viewed by DOE as suggesting that an appropriate interpretation of byproduct material would, like the proposed "direct process" approach, exclude certain radioactive waste streams, in their entirety, from regulation under RCRA.

Development of the Final Rule

At the time of its publication of the proposed rule, DOE made available to the public reports provisionally identifying which of the waste streams generated at its facilities would be considered "direct process waste" subject only to AEA regulation under the proposed rule, and which of those waste streams would be considered "mixed waste" subject to regulation under both RCRA and the AEA. DOE sought and received public comments on those reports, and on the proposed rule itself.

During the period since the proposal was made, DOE has had the opportunity further to review the pertinent legal authorities, as well as to consider the comments received, the provisional waste stream identifications, DOE's additional operating experience, and related actions taken by other federal agencies. Based on the review, DOE is today publishing a final rule that adopts a narrower interpretation of byproduct material than the "direct process" approach that was originally proposed. For the reasons set forth below, the final rule provides that only the actual radionuclides in DOE waste streams will be considered byproduct material. The nonradioactive components of those waste streams, under the final rule, will be subject to regulation under RCRA to the extent that they contain hazardous components.

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[1] *See* Northern States Power Co. v. Minnesota, 447 F.2d 1143 (8th Cir. 1971), *aff'd*, 405 U.S. 1035 (1972). *See also* Train v. Colorado Pub. Interest Research Group, 426 U.S. 1 (1976).

[2] Brown v. Kerr-McGee Chem. Corp., 767 F.2d 1234, 1240 (7th Cir. 1985).

Discussion

The overriding question raised by the public comments on the proposed rule was whether RCRA's exclusion of source, special nuclear and byproduct material from regulation under that Act was intended by the Congress to exempt entire waste streams, rather than exempting only the radionuclides dispersed or suspended in a waste stream. As discussed above, the proposed rule woud have treated any "direct process" waste as byproduct material in its entirety, even if the waste contained a nonradioactive chemically hazardous component that would otherwise have been subject to regulation under RCRA. Thus, the characterization of a waste stream as "direct process" waste would have foreclosed the application of RCRA to that stream irrespective of whether the associated non-radiological environmental hazard was significant. In the opinion of many commenters, this was a significant disadvantage to the "direct process" approach. In view of this concern, some commenters suggested that DOE instead adopt an alternative interpretative approach that would permit the application of each regulatory regime to the type of hazard that it was designed to control, *i.e.* that would apply the AEA to ensure protection against the radiological hazard of this waste, and apply RCRA to ensure protection against any associated chemical hazard.

DOE's operational experience since the publication of the proposed rule lends support to the concern expressed by these commenters. In its efforts provisionally to apply the "direct process" approach, DOE found a number of instances in which otherwise identical wastes were sometimes found subject to RCRA, and other times were found subject only to the AEA, due solely to the wastes' different proximity to the physical process of producing and utilizing special nuclear material. While distinctions of this type are not entirely incompatible with the process-oriented language employed by the Congress in the AEA to define byproducts material, DOE has concluded after further analysis that the better view of the law is one that avoids such artificial distinctions and that affords the greatest scope to the RCRA regulatory scheme, consistent with the requirements of the AEA. *See Legal Envtl. Assistance Found. v. Hodel*, 586 F. Supp. 1163 (E.D. Tenn. 1984).

As noted in the foregoing discussion and in the preamble to the proposed rule, the legislative histories of both RCRA and the AEA provide little assistance in interpreting either the meaning of the term byproduct material or the intended effect of RCRA's exclusion of byproduct material from the hazardous waste regulatory program. The House Committee on Interstate and Foreign Commerce, in reporting its version of the bill that ultimately was enacted as RCRA, alluded to a 1973 leak of radioactive waste from a DOE underground storage tank at Richland, Washington as an "actual instance [ ] of damage caused by current hazardous waste disposal practices." H.R. Rep. 1491, 94th Cong., 2d Sess., pt. 1, at 17–1 *reprinted in* 1976 U.S. Code Cong. & Admin. News 6238, 6254–57. This reference is a less than certain indication that the Congress viewed such radioactive waste as "hazardous waste" subject to RCRA. Unlike RCRA as finally enacted, the bill [3] which this House Report accompanied contained no provision excluding source, special nuclear and byproduct material, thereby minimizing the probative value of the Committee's Richland reference in construing the statute that was ultimately enacted. Nevertheless, the Committee's reference should not be entirely discounted as evidence that the Congress in considering RCRA was concerned with unregulated hazards presented by radioactive waste, even though the AEA already provided sufficient regulatory control over the radiological hazards associated with such waste.

No court has addressed the specific question whether the entirety of a nuclear waste, or only its radioactive component, is byproduct material.[4] The decision in Brown v. Kerr-McGee Chem. Corp., supra note 2, clearly holds that the States cannot employ their general authority to abate nuisances to regulate even the nonradiation hazard of a waste incompatibly with regulation done under the AEA where the radiation and nonradiation hazards are inseparable. Nothing in that decision, however, is incompatible with concurrent regulation, by the States or EPA, of the nonradioactive component of a nuclear waste, subject to paramount requirements of the AEA.[5]

In this context, DOE notes that at the time the Congress was considering RCRA, the Supreme Court very recently had published its decision in Train v. Colorado Pub. Interest Research Group, 426 U.S. 1 (1976). That case decided whether the Federal Water Pollution Control Act, as amended in 1972, applied to source, special nuclear and byproduct material discharged into navigable waters by government-owned production facilities and commercial power reactors regulated by the AEA. After concluding that the Federal Water Pollution Control Act, properly construed, did not authorize EPA or the States to regulate source, special nuclear and byproduct material, the Court rejected the contention that the Water Act contemplated joint regulation of source, special nuclear or byproduct material effluents. 426 U.S. at 15. The practical effect of the Court's decision, however, was a regime of concurrent regulation, by different authorities, of effluent streams containing both radioactive and nonradioactive components. Specifically, the decision left EPA and the States free to regulate, under the Water Act, the nonradioactive component of liquid effluents from nuclear facilities, while reserving to the NRC and DOE's predecessor agency all regulatory authority over the source, special nuclear and byproduct materials contained in those same effluent streams.

The legislative history of RCRA contains no mention of the *Train* decision. However, the Congress is presumed to be aware of decisions of the Supreme Court,[6] and in fact employed in RCRA the same AEA terms, including byproduct material, that the Court had extracted from the Water Act's legislative history to emphasize in its analysis in *Train*. Thus it is at least equally logical to infer that the Congress, in selecting the AEA terms emphasized in *Train*, anticipated a similar result under RCRA as it is to posit—as did the proposed rule—that RCRA's exclusion of byproduct material must have been intended to exclude in their entirety some waste streams from regulation under RCRA.

In short, while the specific legal authorities relied upon by DOE in developing the proposed rule appeared consistent with the "direct process" approach, those authorities are equally consistent with the narrower interpretation of byproduct material that was suggested by the majority of the commenters on the proposed rule. More importantly, DOE is now persuaded after further analysis that the "direct process" approach does not reflect the better view of the law.

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[3] H.R. 14496, 94th Cong., 2d Sess. (1976).

[4] Two decisions have upheld the authority of the NRC's predecessor agency, the Atomic Energy Commission, to license low level radioactive waste as byproduct material. Harris County v. United States, 292 F.2d 370 (5th Cir. 1961); City of New Britain v. Atomic Energy Comm'n, 308 F.2d 648 (D.C. Cir. 1962). In neither case, however, did the court reach the specific question whether the entirety of the waste, or only its radioactive component, is byproduct material.

[5] *See* discussion of RCRA section 1006(a), 42 U.S.C. 6905(a), *supra*.

[6] Cary v. Curtis, 44 U.S. (3 How.) 236, 240 (1845).

RCRA is a remedial statute, and as such must be liberally construed to effectuate the remedial purpose for which it was enacted.[7] The intended comprehensiveness of RCRA's regulatory scheme is evident from the Act's legislative history. The principal sponsor of the legislation in the Senate emphasized that it represented "a major commitment of federal assistance to state and local government efforts to meet [hazardous and solid waste] problems in a comprehensive and effective manner." [8] The House Committee on Interstate and Foreign Commerce regarded the legislation as closing the "last remaining loophole" [9] in a framework of national environmental laws that already included the Clear Air Amendments of 1970, the Federal Water Pollution Control Act Amendments of 1972, and the Safe Drinking Water Act.

Moreover, interpretation of RCRA's exclusion of byproduct material must not focus solely on that exclusion, read in isolation. Instead, the exclusion can be viewed properly only in the context of the whole statute, as well as its object and policy.[10] In this connection, it seems apparent that RCRA was intended to have some applicability to materials that were already regulated under the AEA. Section 1006(a) of RCRA, 42 U.S.C. 6905(a), specifies that as to "any activity or substance" subject to the AEA, RCRA regulation must yield, but only to the extent of "inconsistent" requirements stemming from the AEA. The archetypal "substances" that can fairly be described as "subject to" the AEA are substances containing source, special nuclear and byproduct material, to which the AEA expressly is directed. Thus the language of section 1006(a) seems generally to contemplate complementary regulation under both statutes of substances that under prior law might have been regulated exclusively by the AEA.

Viewed in this light, RCRA's definitional exclusion of source, special nuclear and byproduct material assumes a narrower significance than was suggested in the proposed rule. Instead of referring to any waste stream in its entirety, the exclusion appears directed only to the radioactive component of a nuclear waste. The result, however, is a more harmonious view of the statute as a whole. Read together, DOE believes that the definitional exclusion and the language of section 1006(a) are correctly understood to provide for the regulation under RCRA of all hazardous waste, including waste that is also radioactive. RCRA does not apply to the radioactive component of such a waste, however, if it is source, special nuclear or byproduct material. Instead, the AEA applies to that radioactive component. Finally, if the application of both regulatory regimes proves conflicting in specific instances, RCRA yields to the AEA.

In addition to construing the whole of RCRA in harmony, this interpretation results in according both RCRA and the AEA the greatest capacity to regulate effectively the special type of hazard that each statute was designed to control. Since the two statutes are not in irreconcilable conflict, but are capable of co-existence, they should be interpreted such that the operation and objectives of each are facilitated. *See Radzanower v. Touche Ross & Co.*, 426 U.S. 148, 155 (1976). However, in issuing today's final rule, DOE emphasizes the importance of section 1006(a) in resolving any particular inconsistencies that may occur between the requirements of RCRA and those of the AEA. DOE is the federal agency responsible for authoritatively construing the requirements of the AEA, as that Act applies to DOE activities. While DOE does not anticipate that adoption of today's final rule will lead to frequent cases of "inconsistency," section 1006(a) provides critical assurance that the implementation of the final rule will present no impediment to the maintenance of protection from radiological hazards as well as DOE's accomplishment of its other statutory responsibilities under the AEA.

A final consideration in adopting today's final rule is the rule's consistency with the legal position adopted by EPA and the NRC in resolving questions concerning RCRA's application at NRC-licensed commercial nuclear facilities. In a recent guidance document developed jointly by EPA and the NRC,[11] the two agencies stated that for commercial low-level radioactive waste containing a hazardous component, they will regard only the actual radionuclides in the waste as being exempt from RCRA. Today's final rule adopts the same approach for all DOE radioactive and chemically hazardous waste.

Accordingly, for purposes of RCRA, DOE interprets the term byproduct material to refer only to the radioactive component of a nuclear waste. The nonradioactive chemically hazardous component of the waste will be subject to regulation under RCRA.

Procedural Matters

A. Executive Order 12291

This rule has been reviewed in accordance with Executive Order 12291. The rule is not classified as a major rule because it does not meet the criteria for major rules established by that Order.

B. National Environmental Policy Act

This rule is an interpretative rule intended only to clarify the meaning of a statutory definition. Issuance of the rule will have no environmental impact.

C. Regulatory Flexibility Act Certification

The rule will not have a significant impact on a substantial number of small entities.

D. Paperwork Reduction Act of 1980

There are no information collection requirements in the rule.

List of Subjects in 10 CFR Part 962

Nuclear materials, Byproduct material.

Issued in Washington, DC, April 27, 1987.

J. Michael Farrell,

General Counsel.

In consideration of the foregoing, Part 962 is added to 10 CFR Chapter III, to read as follows:

PART 962—BYPRODUCT MATERIAL

Sec.
962.1 Scope.
962.2 Purpose.
962.3 Byproduct material.

Authority: The Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*); Energy Reorganization Act of 1974 (42 U.S.C. 5801 *et seq.*); Department of Energy Organization Act (42 U.S.C. 7101 *et seq.*); Nuclear Waste Policy Act (Pub. L. 97-425, 96 Stat. 2201).

§ 962.1 Scope.

This Part applies only to radioactive waste substances which are owned or produced by the Department of Energy at facilities owned or operated by or for the Department of Energy under the Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq*). This Part does not apply to substances which are not owned or produced by the Department of Energy.

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[7] *See, e.g.,* Westinghouse Elec. Corp. v. Pacific Gas & Elec. Co., 326 F.2d 575 (9th Cir. 1964).

[8] 122 Cong. Rec. 21402 (1976) (remarks of Sen. Randolph).

[9] H.R. Rep. No. 94-1491, 94th Cong., 2d Sess., pt. 1, at 4, *reprinted in* 1976 U.S. Code Cong. & Ad. News 6238, 6241.

[10] *See, e.g.,* Richards v. United States, 369 U.S. 1, 11 (1962).

[11] "Guidance on the Definition and Identification of Commercial Mixed Low Level Radioactive and Hazardous Waste," Jan. 8, 1987.

§ 962.2 Purpose.

The purpose of this Part is to clarify the meaning of the term "byproduct material" under section 11e(1) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(1)) for use only in determining the Department of Energy's obligations under the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*) with regard to radioactive waste substances owned or produced by the Department of Energy pursuant to the exercise of its responsibilities under the Atomic Energy Act of 1954. This Part does not affect materials defined as byproduct material under section 11e(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

§ 962.3 Byproduct material.

(a) For purposes of this Part, the term "byproduct material" means any radioactive material (except special nuclear material) yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material.

(b) For purposes of determining the applicability of the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*) to any radioactive waste substance owned or produced by the Department of Energy pursuant to the exercise of its atomic energy research, development, testing and production responsibilities under the Atomic Energy Act of 1954 (42 U.S.C. 2011 *et seq.*), the words "any radioactive material," as used in subsection (a), refer only to the actual radionuclides dispersed or suspended in the waste substance. The nonradioactive hazardous component of the waste substance will be subject to regulation under the Resource Conservation and Recovery Act.

[FR Doc. 87-[illegible] Filed 4-30-87; 8:45 am]

BILLING CODE 6450-01-M

Question 2. Identify and describe which waste streams and existing wastes now in storage or disposed, at which facilities, would be exempted from RCRA and CERCLA as a result of the pending proposals. Describe which waste streams and existing wastes now in storage or disposed, at which facilities, would be exempt from regulation as high level waste as a result of the pending proposals.

Answer. With the issuance of the final interpretive rule the legal uncertainty regarding the applicability of RCRA to DOE activities under the AEA has now been removed. Accordingly, all DOE hazardous wastes (radioactive and non-radioactive) currently generated, stored, or disposed are subject to RCRA and CERCLA and no exemptions are claimed.

Question 3. DOE has a substantial depth of scientific and technical expertise within DOE and within its laboratories which can and is being applied to environmental problems. Pacific Northwest Laboratories, for example, has a hazardous waste program. Please provide a summary of the contracts and programs funded, and the level of funding, by the Office of Environment, Safety and Health, Office of Defense Programs, and the individual operations offices with the national laboratories for resolution of hazardous and mixed waste problems of DOE facilities.

Answer. This question cross-cuts many offices and responsibilities which makes gathering of this data difficult. Attached is a partial response covering contracts and programs funded by the Office of Defense Programs. We will provide a more complete response to this question at a later date.

7/23/87

FY-1988 Requested Funding at National Laboratories to Resolve Hazardous and Mixed Waste Problems at DOE Facilities

Ops Office	Laboratory	Activity	FY-1988 Funding x $1,000
OR	Oak Ridge Nat'l Lab.	-Hazardous Waste Remedial Action Program (HAZWRAP)	$ 7,754
		-Defense Programs Hazardous and Mixed Waste Operations and Remedial Actions	4,107
		-Ground Water Monitoring	250
		-Volume Reduction Process Waste Treatment Plant	600
		-ORNL Hazardous and Mixed Waste Overhead Operations	1,700
		-Bethel Valley LLW Collection & Transport (Mixed Waste Portion)	1,000
		-Regulatory Compliance Monitoring Wells	500
		-Waste Water Storm Drain Isolation	250
		-Environmental Restoration and Facilities Upgrade	1,900
		-Biological System Upgrade (Planned Funding)	1,000
SAN	Lawrence Livermore Nat'l Lab.	-Hazardous and Mixed Waste Overhead Operations	3,700
		-Defense Waste Treatment Facility	12,000
		-Civilian Radioactive Waste Mgt. hazardous/mixed waste activities(Estimate based on FY 1987 Flat rate)	15,780
		-Environmental Restoration of hazardous/mixed waste sites	10,250
		-Optrode R&D	40
	Stanford Linear Accelerator Ctr.	-Hazardous and Mixed Waste Overhead Operations	540
	Lawrence Berkeley Lab.	-Hazardous and Mixed Waste Overhead Operations	140
		-Civilian Radioactive Waste Mgt. hazardous and mixed waste activities	3,600

Ops Office	Laboratory	Activity	FY-1988 Funding x $1,000
AL	Sandia Nat'l Lab.	-Hazardous Waste Handling	375
		-Risk Assessment Methodology for Remedial Actions	200
		-Mixed Waste Storage	1,800
	Los Alamos Nat'l. Lab.	-Hazardous and Mixed Waste Technology Development	2,150
		-Hazardous Waste Operations	1,000
		-Mixed Waste Operations	700
ID	Idaho National Engineering Laboratory	-Hazardous and Mixed Waste Operations and Remedial Actions (WINCO)	$ 1,660
		-Hazardous and Mixed Waste Operations (EG&G)	2,168
		-Hazardous and Mixed Waste Remedial Actions (EG&G)	1,541
		-Hazardous and Mixed Waste Mgt. Development Activities (EG&G)	4,500
RL	Pacific Northwest Lab.	-RCRA and CERCLA Hazardous and Mixed Waste Monitoring and Support	694
		-Northwest Hazardous Waste RD&D Center (planned Funding)	1,000
CHI	Argonne Nat'l Lab.(E)	-Hazardous and Mixed Waste Operations	1,000
		-Hazardous and Mixed Waste R&D	300
	Brookhaven Nat'l Lab.	-Hazardous and Mixed Waste Operations	660
	Fermi Nat'l Lab.	-Hazardous and Mixed Waste Operations	300
	Argonne Nat'l Lab (W)	-Hazardous and Mixed Waste Operations	1,100
	Ames Laboratory	-Hazardous and Mixed Waste Operations	150
DOE	TOTALS	National Laboratory Hazardous and Mixed Waste Activities	86,409

Question 4. On page 6 of Secretary Walker's written statement is the statement that DOE will "conduct its operations in compliance with the letter and spirit of applicable environmental statutes . . ." As a matter of policy, why isn't DOE voluntarily complying with RCRA and employing state-of-the-art RCRA-type approaches throughout the agency? Why are we continuing to see DOE pursue approaches like the Byproduct Rule or claims that EPA cannot issue RCRA compliance orders or continued disposal of liquid low level wastes to soil? Don't these actions simply contradict the Department's stated policy to comply with the spirit of these laws?

Answer. It is the Department's policy to "conduct its operations in compliance with the letter and spirit of applicable environmental statutes, regulations, and standards." However, legal uncertainty prevailed regarding the applicability of RCRA to DOE activities under the Atomic Energy Act (AEA). This uncertainty was removed when DOE issued a final interpretive rule on May 1, 1987, clarifying the joint applicability of RCRA and AEA regulations to DOE's radioactive hazardous waste.

DOE is actively working with EPA and the states to implement the new rule and to bring all affected DOE radioactive waste management facilities into full compliance with RCRA requirements. DOE has entered into nine separate formal agreements with EPA and/or states concerning RCRA requirements. Under these agreements, monitoring wells, initiating closure and/or cleanup actions on hundreds of waste sites, and implementing numerous other corrective actions are designed to achieve full compliance with RCRA requirements. We are currently working on several similar additional agreements and plan to have such agreements for all DOE sites experiencing RCRA compliance problems.

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